SM No :TCP093FEF0

Service Manual

COLOR TELEVISION
CHASSIS : CP-093/F

MODEL : DTD-21H9
DTD-14H9

Caution
: In this Manual, some parts can be changed for improving. their performance without notice in the parts list. So, if you need the latest parts information, please refer to PPL(Parts Price List)in Service Information Center(http://svc.dwe.co.kr)

DAEWOO ELECTRONICS Corp.
http : //svc.dwe.co.kr Jan. 2005

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1. MAIN FEATURES

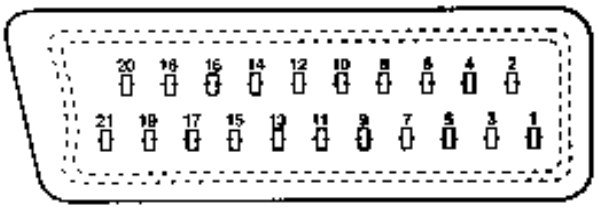
1.1 SPECIFICATIONS

1.1.1 GENERAL

TV standard		PAL - SECAM B/G D/K, PAL I/I, SECAM L/L'
Colour system	Tuner	PAL, SECAM
	AV	PAL, SECAM, PAL 60, NTSC M, NTSC 4.43
Sound system		NICAM B/G, I, D/K, L, FM 2Carrier B/G, D/K
Power consumption		14" : 66W 21" : 74W
Sound Output Power		14" : 1.5W x 2 (at 60% mod, 10% THD) 20" : 3W x 2 (at 60% mod, 10%THD)
Speaker		14" : 3W 8 ohm x 2 (No sound when AV2 PCB 21" : 5W 8 ohm x2 is not connected)
Teletext system		10 pages memory FASTEXT (FLOF or TOP)
Aerial input		75 ohm unbalanced
Channel coverage		Off-air channels, S-cable channels and hyperband
Tuning system		frequency synthesiser tuning system
Visual screen size		14" : 33cm 21" : 51cm
Channel indication		On Screen Display
Program Selection		100 programmes
Aux. terminal		- EURO-SCART : Audio / Video In and Out, R/G/B In, Slow and Fast switching. -SPDIF and Audio L/R out at back of cabinet. (14") - Headphone jack on front of cabinet (21") - AV2 : Video and Audio L/R out, Headphone jack at side of cabinet.
Remote Control Unit		R-52C03

1.1.2 EURO-SCART 1 (21 Pin)

Pin	Signal Description	Matching value
1	Audio Output Right	0.5 Vrms, Impedance < 1 kΩ, (RF 54% Mod)
2	Audio Input Right	0.5 Vrms, Impedance > 10 kΩ
3	Audio Output Left	0.5 Vrms, Impedance < 1 kΩ, (RF 54% Mod)
4	Audio Earth	
5	Blue Earth	
6	Audio Input Left	0.5 Vrms, Impedance > 10 kΩ
7	Blue Input	0.7 Vpp ±0.1V, Impedance 75Ω
8	Slow Switching	TV : 0 to 2V, AV 16/9 : 4.5 to 7V, AV 4/3 : 9.5 to 12V , Impedance > 10 kΩ
9	Green Earth	
10	N.C.	
11	Green Input	0.7 Vpp ± 0.1V, Impedance 75Ω
12	N.C.	
13	Red Earth	
14	Blanking Earth	
15	Red Input	0.7 Vpp ± 0.1V, Impedance 75Ω
16	Fast Switching	0 to 0.4V : Logic " 0", 1 to 3V : Logic " 1", Impedance 75Ω
17	Video Out Earth	
18	Video In Earth	
19	Video Output	1 Vpp ± 3dB, Impedance 75Ω
20	Video Input	1 Vpp ± 3dB, Impedance 75Ω
21	Common Earth	



1.2 CHANNEL/FREQUENCY TABLE

CHANNEL	EUROPE CCIR	FRANCE	GB(IRELAND)	EAST OIRT
C01	46.25	-	45.75	49.75
C02	48.25	55.75 (L')	53.75	59.25
C03	55.25	60.5 (L')	61.75	77.25
C04	62.25	63.75 (L')	175.25	85.25
C05	175.25	176.00	183.25	93.25
C06	182.25	184.00	191.25	175.25
C07	189.25	192.00	199.25	183.25
C08	196.25	200.00	207.25	191.25
C09	203.25	208.00	215.25	199.25
C10	210.25	216.00	223.25	207.25
C11	217.25	189.25 (LUX)	231.25	215.25
C12	224.25	69.25 (L')	239.25	223.25
C13	53.75	76.25 (L')	247.25	-
C14	-	83.25 (L')	49.75	-
C15	82.25	90.25	57.75	-
C16	-	97.25	65.75	-
C17	183.75	-	77.75	-
C18	192.25	-	85.75	-
C19	201.25	-	-	-
C20	-	-	-	-
C21	471.25	471.25	471.25	471.25
C22	479.25	479.25	479.25	479.25
C23	487.25	487.25	487.25	487.25
C24	495.25	495.25	495.25	495.25
C25	503.25	503.25	503.25	503.25
C26	511.25	511.25	511.25	511.25
C27	519.25	519.25	519.25	519.25
C28	527.25	527.25	527.25	527.25
C29	535.25	535.25	535.25	535.25
C30	543.25	543.25	543.25	543.25
C31	551.25	551.25	551.25	551.25
C32	559.25	559.25	559.25	559.25
C33	567.25	567.25	567.25	567.25
C34	575.25	575.25	575.25	575.25
C35	583.25	583.25	583.25	583.25
C36	591.25	591.25	591.25	591.25
C37	599.25	599.25	599.25	599.25
C38	607.25	607.25	607.25	607.25
C39	615.25	615.25	615.25	615.25
C40	623.25	623.25	623.25	623.25
C41	631.25	631.25	631.25	631.25
C42	639.25	639.25	639.25	639.25
C43	647.25	647.25	647.25	647.25
C44	655.25	655.25	655.25	655.25
C45	663.25	663.25	663.25	663.25

C46	671.25	671.25	671.25	671.25
C47	679.25	679.25	679.25	679.25
C48	687.25	687.25	687.25	687.25
C49	695.25	695.25	695.25	695.25
C50	703.25	703.25	703.25	703.25
C51	711.25	711.25	711.25	711.25
C52	719.25	719.25	719.25	719.25
C53	727.25	727.25	727.25	727.25
C54	735.25	735.25	735.25	735.25
C55	743.25	743.25	743.25	743.25
C56	751.25	751.25	751.25	751.25
C57	759.25	759.25	759.25	759.25
C58	767.25	767.25	767.25	767.25
C59	775.25	775.25	775.25	775.25
C60	783.25	783.25	783.25	783.25
C61	791.25	791.25	791.25	791.25
C62	799.25	799.25	799.25	799.25
C63	807.25	807.25	807.25	807.25
C64	815.25	815.25	815.25	815.25
C65	823.25	823.25	823.25	823.25
C66	831.25	831.25	831.25	831.25
C67	839.25	839.25	839.25	839.25
C68	847.25	847.25	847.25	847.25
C69	855.25	855.25	855.25	855.25
C70	863.25	863.25	863.25	863.25
C71	69.25	-	-	-
C72	76.25	-	-	-
C73	83.25	-	-	-
C74	90.25	-	-	-
C75	97.25	-	-	-
C76	59.25	-	-	-
C77	93.25	-	-	-
S01	105.25	104.75	103.25	105.25
S02	112.25	116.75	111.25	112.25
S03	119.25	128.75	119.25	119.25
S04	126.25	140.75	127.25	126.25
S05	133.25	152.75	135.25	133.25
S06	140.25	164.75	143.25	140.25
S07	147.25	176.75	151.25	147.25
S08	154.25	188.75	159.25	154.25
S09	161.25	200.75	167.25	161.25
S10	168.25	212.75	-	168.25
S11	231.25	224.75	-	231.25
S12	238.25	236.75	-	238.25
S13	245.25	248.75	255.25	245.25
S14	252.25	260.75	263.25	252.25
S15	259.25	272.75	271.25	259.25
S16	266.25	284.75	279.25	266.25
S17	273.25	296.75	287.25	273.25

S18	280.25	136.00	295.25	280.25
S19	287.25	160.00	303.25	287.25
S20	294.25	-	-	294.25
S21	303.25	303.25	-	303.25
S22	311.25	311.25	311.25	311.25
S23	319.25	319.25	319.25	319.25
S24	327.25	327.25	327.25	327.25
S25	335.25	335.25	335.25	335.25
S26	343.25	343.25	343.25	343.25
S27	351.25	351.25	351.25	351.25
S28	359.25	359.25	359.25	359.25
S29	367.25	367.25	367.25	367.25
S30	375.25	375.25	375.25	375.25
S31	383.25	383.25	383.25	383.25
S32	391.25	391.25	391.25	391.25
S33	399.25	399.25	399.25	399.25
S34	407.25	407.25	407.25	407.25
S35	415.25	415.25	415.25	415.25
S36	423.25	423.25	423.25	423.25
S37	431.25	431.25	431.25	431.25
S38	439.25	439.25	439.25	439.25
S39	447.25	447.25	447.25	447.25
S40	455.25	455.25	455.25	455.25
S41	463.25	463.25	463.25	463.25

2. SAFETY INSTRUCTION

WARNING: Only competent service personnel may carry out work involving the testing or repair of this equipment.

X-RAY RADIATION PRECAUTION

1. Excessive high voltage can produce potentially hazardous X-RAY RADIATION. To avoid such hazards, the high voltage must not exceed the specified limit. The nominal value of the high voltage of this receiver is 25-26 KV (20”-21”) or 26 KV (25” - 28”) at max beam current. The high voltage must not, under any circumstances, exceed 27.5 KV (20”), 29KV (21”), 29.5 KV (25") or 30 KV (28"). Each time a receiver requires servicing, the high voltage should be checked. It is important to use an accurate and reliable high voltage meter.
2. The only source of X-RAY Radiation in this TV receiver is the picture tube. For continued X-RAY RADIATION protection, the replacement tube must be exactly the same type tube as specified in the parts list.

SAFETY PRECAUTION

Potentials of high voltage are present when this receiver is operating. Operation of the receiver outside the cabinet or with the back board removed involves a shock hazard from the receiver. Servicing should not be attempted by anyone who is not thoroughly familiar with the precautions necessary when working on high voltage equipment.
Discharge the high potential of the picture tube before handling the tube. The picture tube is highly evacuated and if broken, glass fragments will be violently expelled.
If any Fuse in this TV receiver is blown, replace it with the FUSE specified in the Replacement Parts List.
When replacing a high wattage resistor (metal oxide film resistor) in the circuit board, keep the resistor 10 mm away from circuit board.
Keep wires away from high voltage or high temperature components.
This receiver must operate under AC 230 volts, 50 Hz. NEVER connect to a DC supply or any other voltage or frequency.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this equipment have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the X-RAY RADIATION protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements, electrical components having such features are identified by designated symbol on the parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitutes replacement parts which do not have the same safety characteristics as specified in the parts list may create X-RAY Radiation.

3. ALIGNMENT INSTRUCTIONS

3.1 MICROCONTROLLER CONFIGURATION : SERVICE MODE

To switch the TV set into service mode please see instruction below.

1 - Select PR. number 91
2 - Adjust sharpness to minimum and exit all menus.
3 – Within 2 seconds press the key sequence : **RED - GREEN - menu**

The software version is displayed beside the word Service, e.g. " SERVICE VER 00.05" .

To exit SERVICE menu press **menu** key or **Std By** key.

3.2 SERVICE MODE NAVIGATION

Pr Up/Down remote keys : cycle through the service items available.
Vol -/+ remote keys : Dec./Increment the values within range – Cycle trough option bits.
OK key : Toggle bits in option byte

Order	Item	Default setting
1	HOR CEN	
2	RED GAIN	
3	GRN GAIN	
4	BLUE GAIN	
5	RED BIAS	
6	GRN BIAS	
7	AGC LEVEL	
8	G2 – SCREEN	
9	OPTION1	
10	OPTION2	
11	AVL	
12	PARABOLA	
13	HOR WIDTH	
14	CORNER T	
15	CORNER B	
16	HOR. PARAL	
17	V. LINEAR	
18	V. SLOPE	
19	EW TRAPEZ	
20	S CORRECT	
21	VERT CENT	
22	VERT SIZE	

3.3 MICROCONTROLLER CONFIGURATION : OPTION BITS

There are two option bytes available (16 bits in all). These option bits are available from Service mode. First find the OPTION1 or OPTION2 control, and then use the Volume PLUS/MINUS buttons on the remote control keypad to locate the bits, and OK key to toggle them. The table below shows the two option bytes available;

3.4 OPTION 1

	B7	B6	B5	B4	B3	B2	B1	B0
1	TOP Teletext OFF	FASTEXT (FLOF) OFF	TUBE 4:3	VAI bit set to 1 in SECAM L	Dolby Virtual OFF	SVHS3 disable	**TUNER OPTIONS** 00 = Philips 01 = Not used 10 = Alps 11 = Parstnic (DW)	
0	TOP Teletext ON	FASTEXT (FLOF) ON	TUBE 16:9	VAI bit set to 0 in SECAM L	Dolby Virtual ON	SVHS3 enable		

3.5 OPTION 2

	B7	B6	B5	B4	B3	B2	B1	B0
1	Fixed to ‘0’	JVC remote control	AVL control OFF	PICTURE TILT ON	14” (AV2 OFF)	Full ATSS	Double Window Enabled	n.u. Must be set to 1 for future compatibility
0		Daewoo Remote control	AVL control ON	PICTURE TILT OFF	21” (AV2 ON)	Basic ATSS	Double Window Disabled	

3.6 NVM default setting

The purpose of this message, when you change a virgin EEPROM, is to allow to modify the NVM DATA to desired values.

1 - Introduction :
The NVM default values are fixed for the user, but for flexibility in service, these data are stored in NVM and can be changed when the TV set is in a special mode call "NVM EDITOR". This mode can only be access from "FACTORY" mode.

2 - Entering into "FACTORY" mode.
To switch the TV set into FACTORY mode, use the factory remote control, and press on "SVC" key. The factory menu will appear on the screen, showing "FACTORY" , plus other relevant information like software version and date.
WARNING : When in "FACTORY" mode you should not press any key other than the keys described in the procedure below. Unwanted key stroke could misadjust the TV set.

3 - Entering into "NVM EDITOR" mode.
To switch the TV set into NVM EDITOR mode, use the user remote control, and press on "ON/ENTER" key. The NVM EDITOR window will appear on the screen. This mode allow you to access all data stored in NVM. The current NVM address is given in column "ADDR." in both DECimal and HEXadecimal format. The column DATA gives the value contained at selected address in both DECimal and HEXadecimal format.

4 - Navigation in "NVM EDITOR" mode.
Use Program Up/Dwn keys to select the desired address. Use Volume Up/Down keys to change the data at selected address. You must press " OK/ENTER" key to store value after modification.

The data can be adjusted between 0 and 63.

5 - Exit "NVM EDITOR" mode.
To switch the TV set back into FACTORY mode, use the user remote control, and press on "MENU" key.
The factory menu will appear on the screen, showing "FACTORY".

6 - Exit "FACTORY" mode.
To exit "FACTORY" mode, use the factory remote control, and press on "SVC" key.
The factory menu will disappear from the screen.

NVM DATA CHANGE LIST (hex)

No	Register Name	Address	Default	14H9	21H9
1	OCP_THRESHOLD	0x58F	*0x91*	<-	<-
2	DCXO	0x590	*0x4E*	<-	<-
3	AVLLEV	0x621	*0x5*	<-	<-
4	TELETEXT - Brightness	0x642	*0x19*	<-	<-
5	OSD - Brightness	0x644	*0x7*	<-	<-
6	Nor1_Bright	0x64A	*0x23*	<-	<-
7	Nor1_contrast	0x64B	*0x2E*	<-	<-
8	Nor1_Colour	0x64C	*0x1C*	<-	<-
9	Nor1_Sharpness	0x64D	*0x23*	<-	<-
10	Nor1_Tint	0x64E	*0x20*	0x1F	0x1F
11	Nor2_Bright	0x653	*0x28*	<-	<-
12	Nor2_Contrast	0x654	*0x13*	<-	<-
13	Nor2_Colour	0x655	*0x19*	<-	<-
14	Nor2_Sharpness	0x656	*0x1B*	<-	<-
15	Nor2_Tint	0x657	*0x20*	0x1F	0x1F
16	V - Linearity	0x667	*0x2A*	0x22	0x27
17	Peak White Level	0x671	*0x1*	<-	<-
18	Soft Clipping Level	0x672	*0x5*	0x7	0x7
19	PresetGainRGB	0x673	*0x2A*	0x1	0x7
20	PresetGainRGB	0x674	*0x2A*	0x1	0x7
21	PresetGainRGB	0x675	*0x2A*	0x1	0x7
22	Cathode_Drive	0x67B	*0x1*	<-	<-
23	RPA	0x680	*0x1*	0x2	0x2
24	Black Stretch	0x682	*0x1*	0x2	0x2
25	BSD	0x683	*0x1*	0x0	0x0
26	AAS	0x684	*0x1*	0x0	0x0
27	BCS	0x685	*0x1*	<-	<-
28	Y_delay_PAL_BG	0x686	*0x5*	<-	<-
29	Y_delay_SECAM_BG	0x687	*0x8*	<-	<-
30	Y_delay_PAL_DK	0x688	*0x5*	<-	<-
31	Y_delay_SCM_DK	0x689	*0x5*	<-	<-
32	Y_delay_PAL_I	0x68A	*0x7*	<-	<-
33	Y_delay_SECAM	0x68B	*0x5*	<-	<-
34	Y_delay_SECAM-L	0x68C	*0x8*	<-	<-
35	Y_delay_AV	0x68D	*0xA*	<-	<-
36	G2_Bright	0x68E	*0x1A*	<-	<-
37	G2_Contrast	0x68F	*0x42*	<-	<-

4. TV SET ALIGNMENT

4.1 G2 ALIGNMENT

- Tune a colour bar pattern.
- Find the "G2 – SCREEN" item in service mode.
- Adjust screen volume (on FBT) to bring the cursor to central position(Green).

4.2 WHITE BALANCE

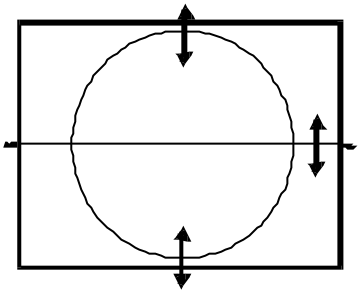
- Select a dark picture and adjust RED BIAS and GRN BIAS to the desired colour temperature.
- Select a bright picture and adjust RED, GRN and BLUE GAIN to the desired colour temperature.

4.3 FOCUS

Adjust the Focus volume (on FBT) to have the best resolution on screen.

4.4 VERTICAL GEOMETRY

Adjust V. LINEAR (linearity), S CORRECT (S. Correction), VERT SIZE (Vertical amplitude), VERT CENT (vertical centring) to compensate for vertical distortion.

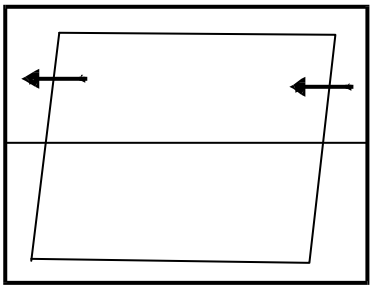


4.5 HORIZONTAL PICTURE CENTRING

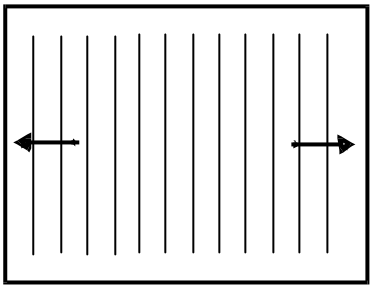
Adjust HOR CEN (Horizontal centre) to have the picture in the centre of the screen.

4.6 EAST / WEST CORRECTION

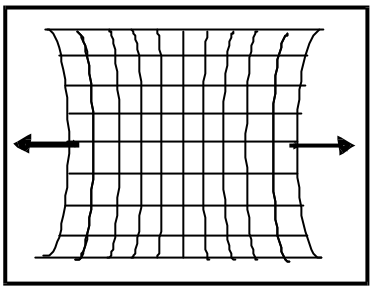
Adjust the PARABOLA, HOR WIDTH, CORNER, HOR PARAL, EW TRAPEZ, to compensate for geometrical distortion.



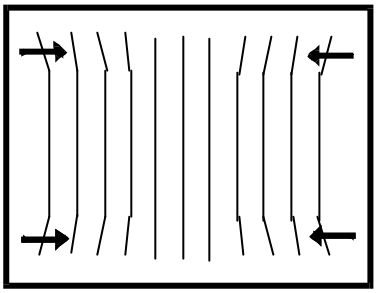
HOR PARAL



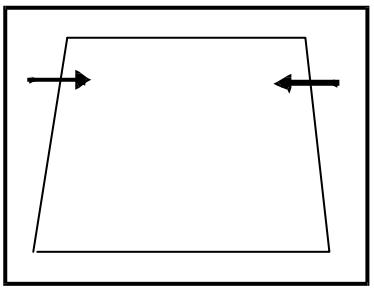
HOR WIDTH
adjust for 93% overscan.



PARABOLA



CORNER B & CORNER T



EW TRAPEZ

4.7 AGC

- Make sure option bits are correct for the tuner fitted on the chassis (See above how to change option bits).
- Adjust the antenna signal level at 62 dBµV
- Tune a colour bar pattern.
- Find the "AGC" item in service mode.
- Press the key "OK" on the remote keypad and wait until AGC level stabilise to the optimum value.

- Alternatively, use "Vol Up/Dwn" keys to adjust manually to the desired Tuner Take Over Point (TOP).

5. IC DESCRIPTION

5.1 UOC ^{III} Series

The UOC^{III} series combines the functions of a Video Signal Processor (VSP) together with a FLASH embedded TEXT/Control/Graphics µ-Controller (TCG µ-Controller) and US Closed Caption decoder. In addition the following functions can be added:

- Adaptive digital (4H/2H) PAL/NTSC combfilter
- Teletext decoder with 10 page text memory
- Multi-standard stereo decoder
- BTSC stereo decoder
- Digital sound processing circuit
- Digital video processing circuit

5.1.1 IC MARKING AND VERSION

Chassis	IC marking	OSD languages	ATSS countries	Text
CP-093 **CP-093F**		**BULGARIAN, CZECH, GERMAN, DANISH, SPANISH, FRENCH, FINNISH, ENGLISH, GREEK, HUNGARIAN, ITALIAN, NORWEGIAN, DUTCH, POLISH, ROMANIAN, RUSSIAN, SWEDISH, SLOVAKIAN.**	Austria, Belgium, Switzerland, Czech Republic, Germany, Denmark, Spain, France, Finland, GB, Greece, Hungary, Italy, Ireland, Norway, Netherlands, Portugal, Poland, Sweden, Slovak Republic, Others	**PAN-EUROPEAN LATIN, CYRILLIC, GREEK.**

5.1.2. BLOCK DIAGRAM

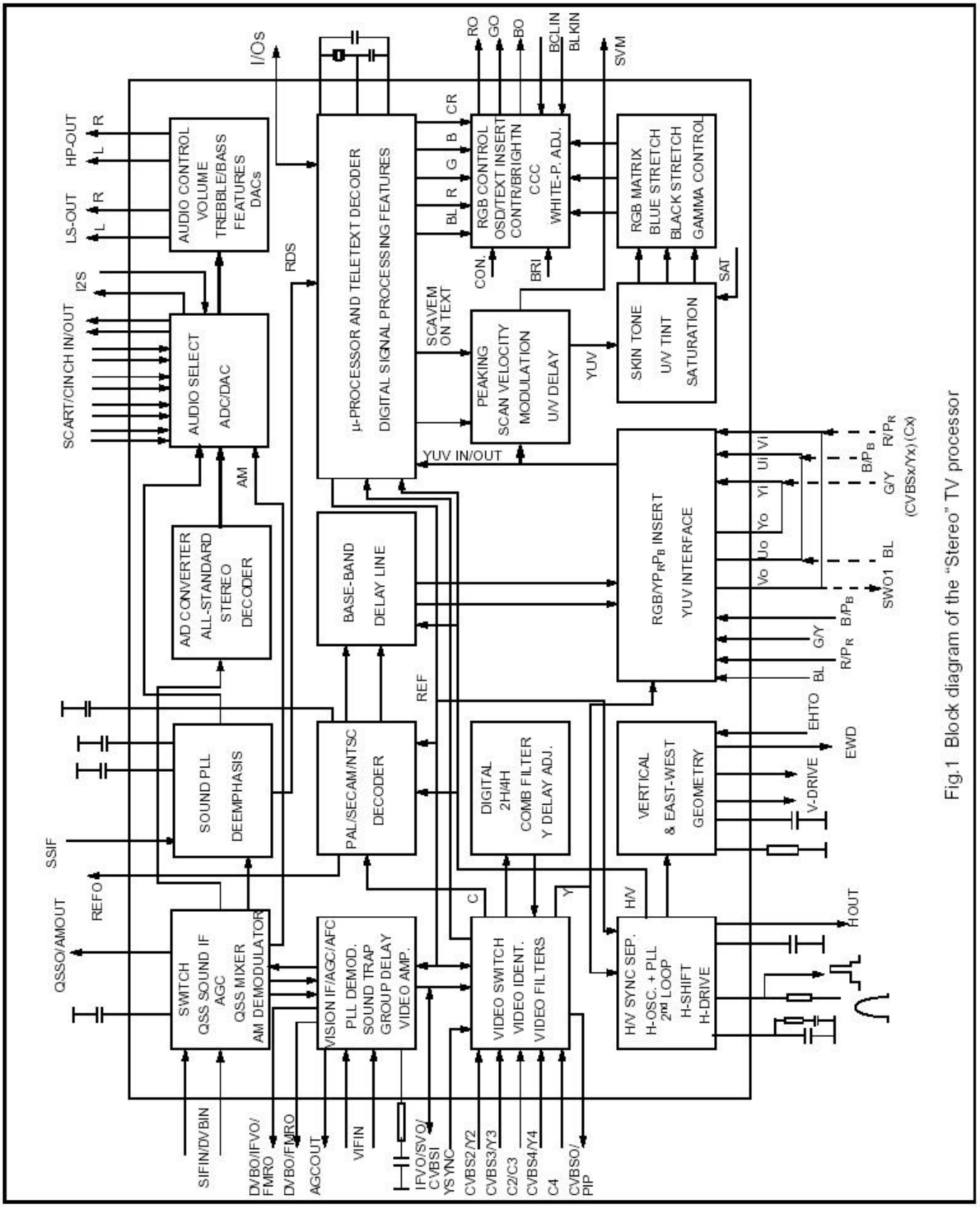


Fig.1 Block diagram of the "Stereo" TV processor

5.1.3. PINNING

QFP 128pin	Symbol	Short Description
1	P1.5/TX	Port 1.5 or UART bus
2	P1.4/RX	port 1.4 or UART bus
3	P1.2/INT2	port 1.2 or external interrupt 2
4	VSSC3	Ground
5	VDDC3	digital supply to core (1.8V)
6	P2.5/PWM4	port 2.5 or PWM4 output
7	P2.4/PWM3	port 2.4 or PWM3 output
8	VSSC/P	digital ground for m-Controller core and periphery
9	P3.3/ADC3	port 3.3 or ADC3 input
10	P3.2/ADC2	port 3.2 or ADC2 input
11	DECV1V8	decoupling 1.8 V supply
12	VDDC1	digital supply to core (+1.8 V)
13	P3.1/ADC1	port 3.1 or ADC1 input
14	P3.0/ADC0	port 3.0 or ADC0 input
15	P2.3/PWM2	port 2.3 or PWM2 output
16	P2.2/PWM1	port 2.2 or PWM1 output
17	P2.1/PWM0	port 2.1 or PWM0 output
18	P2.0/TPWM	port 2.0 or Tuning PWM output
19	VDDP(3.3V)	supply to periphery and on-chip voltage regulator (3.3 V)
20	P1.7/SDA	port 1.7 or I2C-bus data line
21	P1.6/SCL	port 1.6 or I2C-bus clock line
22	P1.3/T1	port 1.3 or Counter/Timer 1 input
23	P0.0/I2SDI1/O	port 0.0 or I2S digital input 1 or I2S digital output
24	P0.1/I2SDO1	port 0.1 or I2S digital output 1
25	P0.2/I2SDO2	port 0.2 or I2S digital output 2
26	P0.3/I2SCLK	port 0.3 or I2S clock
27	P0.4/I2SWS	port 0.4 or I2S word select
28	VSSC2	Ground
29	VDDC2	digital supply to core (1.8 V)
30	P1.1/T0	port 1.1 or Counter/Timer 0 input
31	P1.0/INT1	port 1.0 or external interrupt 1
32	INT0/P0.5	external interrupt 0 or port 0.5 (4 mA current sinking capability for direct drive of LEDs)
33	VDDadc(1.8)	supply voltage video ADC
34	VSSadc	ground for on-chip temperature sensor
35	VDDA2(3.3)	supply voltage SDAC (3.3 V)
36	VDDA(1.8)	analogue supply for audio ADCs (1.8 V)
37	GNDA	Ground
38	VREFAD	reference voltage for audio ADCs (3.3/2 V)
39	VREFAD_POS	positive reference voltage (3.3 V)
40	VREFAD_NEG	negative reference voltage (0 V)
41	VDDA1	analog supply for TCG m-Controller and digital supply for TV-processor (+3.3 V)
42	BO	Blue output
43	GO	Green output

44	RO	Red output
45	BLKIN	black current input
46	BCLIN	beam current limiter input
47	VP3	3rd supply for TV processor
48	GND3	ground 3 for TV-processor
49	B/PBIN3	3rd B input / PB input
50	G/YIN3	3rd G input / Y input
51	R/PRIN3	3rd R input / PR input
52	INSSW3	3rd RGB / YPBPR insertion input
53	VOUT(SWO1)	V-output for YUV interface (general purpose switch output)
54	UOUT(INSSW2)	U-output for YUV interface (2nd RGB / YPBPR insertion input)
55	YOUT	Y-output (for YUV interface)
56	YSYNC	Y-input for sync separator
57	YIN (G/YIN2/CVBS-Yx)	Y-input for YUV interface (2nd G input / Y input or CVBS/YX input))
58	UIN (B/PBIN2)	U-input for YUV interface (2nd B input / PB input)
59	VIN (R/PRIN2/CX)	V-input for YUV interface (2nd R input / PR input or CX input)
60	VDDcomb	supply voltage for comb filter (5 V)
61	VSScomb	ground connection for comb filter
62	HOUT	horizontal output
63	FBISO/CSY	flyback input/sandcastle output or composite H/V timing output
64	SVM	scan velocity modulation output
65	CVBSO/PIP	CVBS / PIP output
66	AUDOUTHPR	audio output for headphone channel (right signal)
67	AUDOUTHPL	audio output for headphone channel (left signal)
68	AUDOUTLSR	audio output for audio power amplifier (right signal)
69	AUDOUTLSL	audio output for audio power amplifier (left signal)
70	C2/C3	chroma-2/3 input
71	CVBS3/Y3	CVBS3/Y3 input
72	AUDIOIN3R	audio 3 input (right signal)
73	AUDIOIN3L	audio 3 input (left signal)
74	CVBS2/Y2	CVBS2/Y2 input
75	AUDIOIN2R	audio 2 input (right signal)
76	AUDIOIN2L	audio 2 input (left signal)
77	C4	chroma-4 input
78	CVBS4/Y4	CVBS4/Y4 input
79	AUDIOIN4R	audio-4 input (right signal)
80	AUDIOIN4L	audio-4 input (left signal)
81	IFVO/SVO/CVBSI (2)	IF video output / selected CVBS output / CVBS input
82	VP2	2nd supply voltage TV processor (+5 V)
83	AGC2SIF	AGC capacitor second sound IF
84	VCC8V	8 Volt supply for audio switches
85	DVBO/FMRO (2)	Digital Video Broadcast output / FM radio output
86	DVBO/IFVO/FMRO (2)	Digital Video Broadcast output / IF video output / FM radio output

87	SIFAGC/DVBAGC (2)	AGC sound IF / internal-external AGC for DVB applications
88	PLLIF	IF-PLL loop filter
89	GND2	ground 2 for TV processor
90	QSSO/AMOUT/AUDEEM (2)	QSS intercarrier output / AM output / deemphasis (front-end audio out)
91	DECSDEM	decoupling sound demodulator
92	AUDOUTSR	audio output for SCART/CINCH (right signal)
93	AUDOUTSL	audio output for SCART/CINCH (left signal)
94	AUDIOIN5R	audio-5 input (right signal)
95	AUDIOIN5L	audio-5 input (left signal)
96	AVL/SWO/SSIF/ REFO/REFIN (2)	Automatic Volume Levelling / switch output / sound IF input / subcarrier reference output / external reference signal input for I signal mixer for DVB operation
97	EHTO	EHT/overvoltage protection input
98	AGCOUT	tuner AGC output
99	SIFIN2/DVBIN2 (2)	SIF input 2 / DVB input 2
100	SIFIN1/DVBIN1 (2)	SIF input 1 / DVB input 1
101	GNDIF	ground connection for IF amplifier
102	IREF	reference current input
103	VSC	vertical sawtooth capacitor
104	VIFIN2	IF input 2
105	VIFIN1	IF input 1
106	VDRA	vertical drive A output
107	VDRB	vertical drive B output
108	EWD/AVL (1)	East-West drive output or AVL capacitor
109	DECBG	bandgap decoupling
110	SECPLL	SECAM PLL decoupling
111	GND1	ground 1 for TV-processor
112	PH1LF	phase-1 filter
113	PH2LF	phase-2 filter
114	VP1	1st supply voltage TV-processor (+5 V)
115	DECDIG	decoupling digital supply
116	VGUARD/SWIO	V-guard input / I/O switch (e.g. 4 mA current sinking capability for direct drive of LEDs)
117	VSSA1	Ground
118	XTALOUT	crystal oscillator output
119	XTALIN	crystal oscillator input
120	VREF_POS_HPR	positive reference voltage SDAC (3.3 V)
121	VREF_NEG_HPL+HPR	negative reference voltage SDAC (0 V)
122	VREF_POS_LSR+HPR	positive reference voltage SDAC (3.3 V)
123	VREF_NEG_LSL+HPL	negative reference voltage SDAC (0 V)
124	VREF_POS_LSL	positive reference voltage SDAC (3.3 V)
125	VDDA3(3.3V)	supply (3.3 V)
126	VDDC4	digital supply to SDACs (1.8V)
127	VSSC4	Ground
128	VSSP2	Ground

5.1.4 **FEATURES**

Analogue Video Processing (all versions)

· Multi-standard vision IF circuit with alignment-free PLL demodulator
· Internal (switchable) time-constant for the IF-AGC circuit
· Switchable group delay correction and sound trap (with switchable centre frequency) for the demodulated CVBS signal
· DVB/VSB IF circuit for preprocessing of digital TV signals.
· Video switch with 3 external CVBS inputs and a CVBS output. All CVBS inputs can be used as Y-input for Y/C signals. However, only 2 Y/C sources can be selected because the circuit has 2 chroma inputs. It is possible to add an additional CVBS(Y)/C input (CVBS/YX and CX) when the YUV interface and the RGB/YPRPB input are not needed.
· Automatic Y/C signal detector
· Adaptive digital (4H/2H) PAL/NTSC comb filter for optimum separation of the luminance and the chrominance signal.
· Integrated luminance delay line with adjustable delay time
· Picture improvement features with peaking (with switchable centre frequency, depeaking, variable positive/negative peak ratio, variable pre-/overshoot ratio and video dependent coring), dynamic skin tone control, gamma control and blue- and black stretching. All features are available for CVBS, Y/C and RGB/YPBPR signals.
· Switchable DC transfer ratio for the luminance signal
· Only one reference (24.576 MHz) crystal required for the TCG m-Controller, digital sound processor, Teletext and the colour decoder
· Multi-standard colour decoder with automatic search system and various " forced mode" possibilities
· Internal base-band delay line
· Indication of the Signal-to-Noise ratio of the incoming CVBS signal
· Linear RGB/YPBPR input with fast insertion.
· YUV interface. When this feature is not required some pins can be used as additional RGB/YPBPR input. It is also possible to use these pins for additional CVBS (or Y/C) input (CVBS/YX and CX).
· Tint control for external RGB/YPBPR signals
· Scan Velocity Modulation output. The SVM circuit is active for all the incoming CVBS, Y/C and RGB/YPBPR signals. The SVM function can also be used during the display of teletext pages.
· RGB control circuit with ' Continuous Cathode Calibration' , white point and black level off-set adjustment so that the colour temperature of the dark and the light parts of the screen can be chosen independently.
· Contrast reduction possibility during mixed-mode of OSD and Text signals
· Adjustable ' wide blanking' of the RGB outputs
· Horizontal synchronization with two control loops and alignment-free horizontal oscillator
· Vertical count-down circuit
· Vertical driver optimized for DC-coupled vertical output stages
· Horizontal and vertical geometry processing with horizontal parallelogram and bow correction and horizontal and vertical zoom
· Low-power start-up of the horizontal drive circuit

Analogue video processing (stereo versions)

· The low-pass filtered ' mixed down' I signal is available via a single ended or balanced output stage.

Analogue video processing (mono versions)

· The low-pass filtered ' mixed down' I signal is available via a single ended output stage

Digital Video Processing (some versions)

· Double Window mode applications. It is possible to display a video and a text window or 2 text

windows in parallel.
· Linear and non-linear horizontal scaling of the video signal to be displayed.

Sound Demodulation (all versions)

· Separate SIF (Sound IF) input for single reference QSS (Quasi Split Sound) demodulation.
· AM demodulator without extra reference circuit
· The mono intercarrier sound circuit has a selective FM-PLL demodulator which can be switched to the different FM sound frequencies (4.5/5.5/6.0/6.5 MHz). The quality of this system is such that the external band-pass filters can be omitted. In the stereo versions of UOCIII the use of this demodulator is optional for special applications. Normally the FM demodulators of the stereo demodulator/decoder part are used (see below).
· The FM-PLL demodulator can be set to centre frequencies of 4.72/5.74 MHz so that a second sound channel can be demodulated. In such an application it is necessary that an external bandpass filter is inserted.
· The vision IF and mono intercarrier sound circuit can be used for the demodulation of FM radio signals. With an external FM tuner also signals with an IF frequency of 10.7 MHz can be demodulated.
· Switch to select between 2nd SIF from QSS demodulation or external FM (SSIF)

Audio Interfaces and switching (stereo versions with Audio DSP)

· Audio switch circuit with 4 stereo inputs, a stereo output for SCART/CINCH, 1 stereo output for HEADPHONE. The headphone channel has an analogue volume control circuit for the L and R channel. Finally 1 stereo SPEAKER output with digital controls.
· AVL (Automatic Volume Levelling) circuit for the headphone channel.
· Digital input crossbar switch for all digital signal sources and destinations
· Digital output crossbar for exchange of channel processing functionality
· Digital audio input interface (stereo I2S input interface)
· Digital audio output interface (stereo I2S output interface)

Audio interfaces and switching (AV stereo versions without Audio DSP)

· Audio switch circuit with 4 stereo inputs, a stereo output for SCART/CINCH and a stereo SPEAKER output with analogue volume control.
· Analogue mono AVL circuit at left audio channel

Audio interfaces and switching (mono versions)

· Audio switch circuit with 4 external audio (mono) inputs and a volume controlled output
· AVL circuit

Stereo Demodulator and Decoder (full stereo versions)

· Demodulator and Decoder Easy Programming (DDEP)
· Auto standard detection (ASD)
· Static Standard Selection (SSS)
· DQPSK demodulation for different standards, simultaneously with 1-channel FM demodulation
· NICAM decoding (B/G, I, D/K and L standard)
· Two-carrier multistandard FM demodulation (B/G, D/K and M standard)
· Decoding for three analog multi-channel systems (A2, A2+ and A2*) and satellite sound
· Adaptive de-emphasis for satellite FM
· Optional AM demodulation for system L, simultaneously with NICAM
· Identification A2 systems (B/G, D/K and M standard) with different identification time constants
· FM pilot carrier present detector
· Monitor selection for FM/AM DC values and signals, with peak and quasi peak detection option
· BTSC MPX decoder
· SAP decoder
· dbx®noise reduction (4)
· Japan (EIAJ) decoder
· FM radio decoder
· Soft-mute for DEMDEC outputs DEC, MONO and SAP

· FM overmodulation adaptation option to avoid clipping and distortion

Audio Multi Channel Decoder (stereo versions with Audio DSP)

· Dolby®Pro Logic®(DPL) (1)

· Five channel processing for Main Left and Right, Subwoofer, Centre and Surround. To exploit this feature an external DAC is required.

Volume and tone control for loudspeakers (stereo versions with Audio DSP)

· Automatic Volume Level (AVL) control
· Smooth volume control
· Master volume control
· Soft-mute
· Loudness
· Bass, Treble
· Dynamic Bass Boost (DBB) (2)
· Dynamic Virtual Bass (DVB) (3)
· BBE®Sound processing (4)
· Graphic equalizer
· Processed or non processed subwoofer
· Programmable beeper

Reflection and delay for loudspeaker channels (stereo versions with Audio DSP)

· Dolby®Pro Logic®Delay (1)
· Pseudo hall/matrix function

Psycho acoustic spatial algorithms, downmix and split in loudspeaker channels (stereo versions with Audio DSP)

· Extended Pseudo Stereo (EPS) (5)
· Extended Spatial Stereo (ESS) (6)
· Virtual Dolby®Surround (VDS 422,423) (1)
· SRS 3D and SRS TruSurround®(4)

RDS/RBDS

· Demodulation of the European Radio Data system (RDS) or the USA Radio Broadcast Data System (RBDS) signal
· RDS and RBDS block detection
· Error detection and correction
· Fast block synchronisation
· Synchronisation control (flywheel)
· Mode control for RDS/RBDS processing
· Different RDS/RBDS block information output modes

m**-Controller**

· 80C51 m-controller core standard instruction set and timing
· 0.4883 ms machine cycle
· maximum of 256k x 8-bit flash programmable ROM
· maximum of 8k x 8-bit Auxiliary RAM
· 12-level Interrupt controller for individual enable/disable with two level priority
· Two 16-bit Timer/Counter registers
· One 24-bit Timer (16-bit timer with 8-bit Pre-scaler)
· WatchDog timer
· Auxiliary RAM page pointer
· 16-bit Data pointer
· Stand-by, Idle and Power Down modes
· 24 general I/O
· 14 bits PWM for Voltage Synthesis Tuning
· 8-bit A/D converter with 4 multiplexed inputs

· 5 PWM (6-bits) outputs for analogue control functions
· Remote Control Pre-processor (RCP)
· Universal Asynchronous Receiver Transmitter (UART)

Data Capture

· Text memory up to 10 pages
· Inventory of transmitted Teletext pages stored in the Transmitted Page Table (TPT) and Subtitle Page Table (SPT)
· Data Capture for US Closed Caption
· Data Capture for 525/625 line WST, VPS (PDC system A) and Wide Screen Signalling (WSS) bit decoding
· Automatic selection between 525 WST/625 WST
· Automatic selection between 625 WST/VPS on line 16 of VBI
· Real-time capture and decoding for WST Teletext in Hardware, to enable optimized m-processor throughput
· Automatic detection of FASTEXT transmission
· Real-time packet 26 engine in Hardware for processing accented, G2 and G3 characters
· Signal quality detector for video and WST/VPS data types
· Comprehensive teletext language coverage
· Vertical Blanking Interval (VBI) data capture of WST data

Display

· Teletext and Enhanced OSD modes
· Features of level 1.5 WST and US Close Caption
· 50Hz/60Hz display timing modes
· Two page operation for 16:9 screens
· Serial and Parallel Display Attributes
· Single/Double/Quadruple Width and Height for characters
· Smoothing capability of both Double Size, Double Width & Double Height characters
· Scrolling of display region
· Variable flash rate controlled by software
· Soft colours using CLUT with 4096 colour palette
· Globally selectable scan lines per row (9/10/13/16/) and character matrix [12x9, 12x10, 12x13, 12x16, 16x18, (VxH)]
· Fringing (Shadow) selectable from N-S-E-W direction
· Fringe colour selectable
· Contrast reduction of defined area
· Cursor
· Special Graphics Characters with two planes, allowing four colours per character
· 64 software redefinable On-Screen display characters
· 4 WST Character sets (G0/G2) in single device (e.g. Latin, Cyrillic, Greek, Arabic)
· G1 Mosaic graphics, Limited G3 Line drawing characters
· WST Character sets and Closed Caption Character set in single device
· SVM for Text

5.2 TDA8944J STEREO AUDIO AMPLIFIER

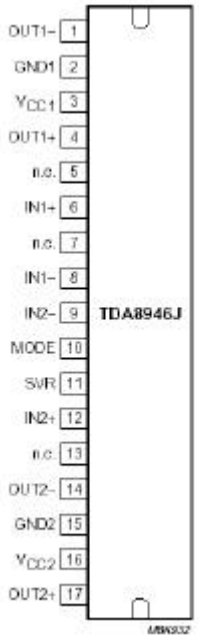
The TDA 8944J is a dual-channel audio power amplifier with an output power of 2 x 5 W at an 8 Ω load and a 12 V supply. The circuit contains two Bridges Tied Load (BTL) amplifiers with an all-NPN output stage and standby/mute logic. The TDA8946J comes in a 17-pin DIL-bent-SIL(DBS) power package.

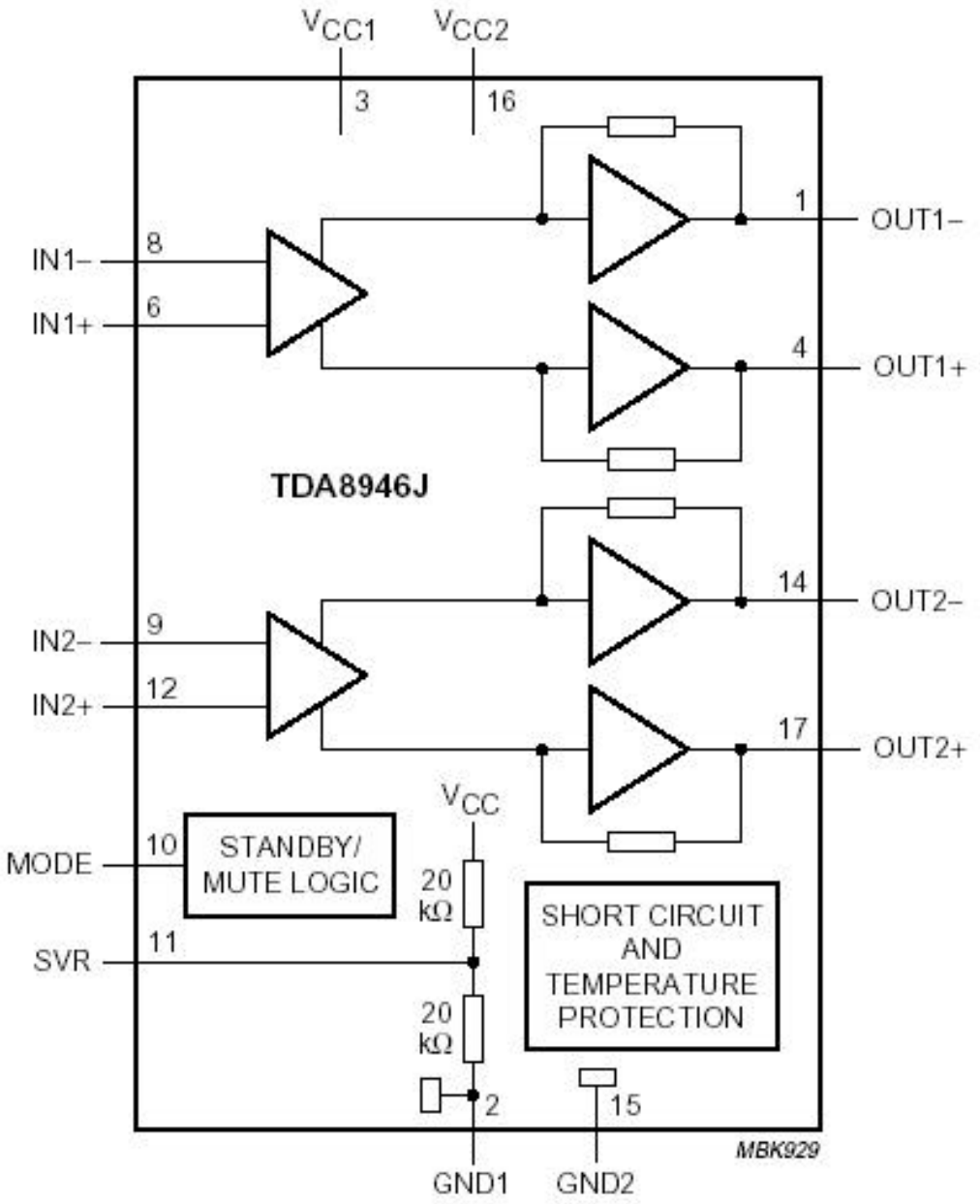
5.2.1 FEATURES

- Few external components
- Fixed gain
- Standby and mute mode
- No on/off switching pop noise.
- Low standby current
- High supply voltage ripple rejection
- Outputs short-circuit protected to ground, supply and across the load
- Thermally protected

Pin description

Pin	Symbol	Description
1	OUT1-	negative loudspeaker terminal 1
2	GND1	ground channel 1
3	Vcc1	supply voltage channel 1
4	OUT1+	positive loudspeaker terminal 1
5	n.c.	not connected
6	IN1+	positive input1
7	n.c.	not connected
8	IN1-	negative input1
9	IN2-	negative input2
10	MODE	mode selection input
11	SVR	half supply voltage decoupling (ripple rejection)
12	IN2+	positive input2





Block diagram TDA8946J

5.3 TDA8357J VERTICAL AMPLIFIER

The TDA8357J are power circuit for use in 90° and 110° colour deflection systems for field frequencies of 25 to 200Hz field frequencies, and for 4:3 and 16/9 picture tubes. The IC contains a vertical deflection output circuit, operating as a high efficiency class G system. The full bridge output circuit allows DC coupling of the deflection coil in combination with single positive supply voltages.

The IC is constructed in a Low Voltage DMOS(LVDMOS) process that combines bipolar, CMOS and DMOS devices. DMOS transistors are used in the output stage because of the absence of second breakdown.

5.3.1 TDA8357J

Features :

- Few external components
- Highly efficient fully DC-coupled vertical bridge output circuit
- Vertical flyback switch with short rise and fal times
- Built-in guard circuit
- Thermal protection circuit
- Improved EMC performance due to differential inputs

Full bridge vertical deflection output circuit in LVDMOS

TDA8357J

BLOCK DIAGRAM

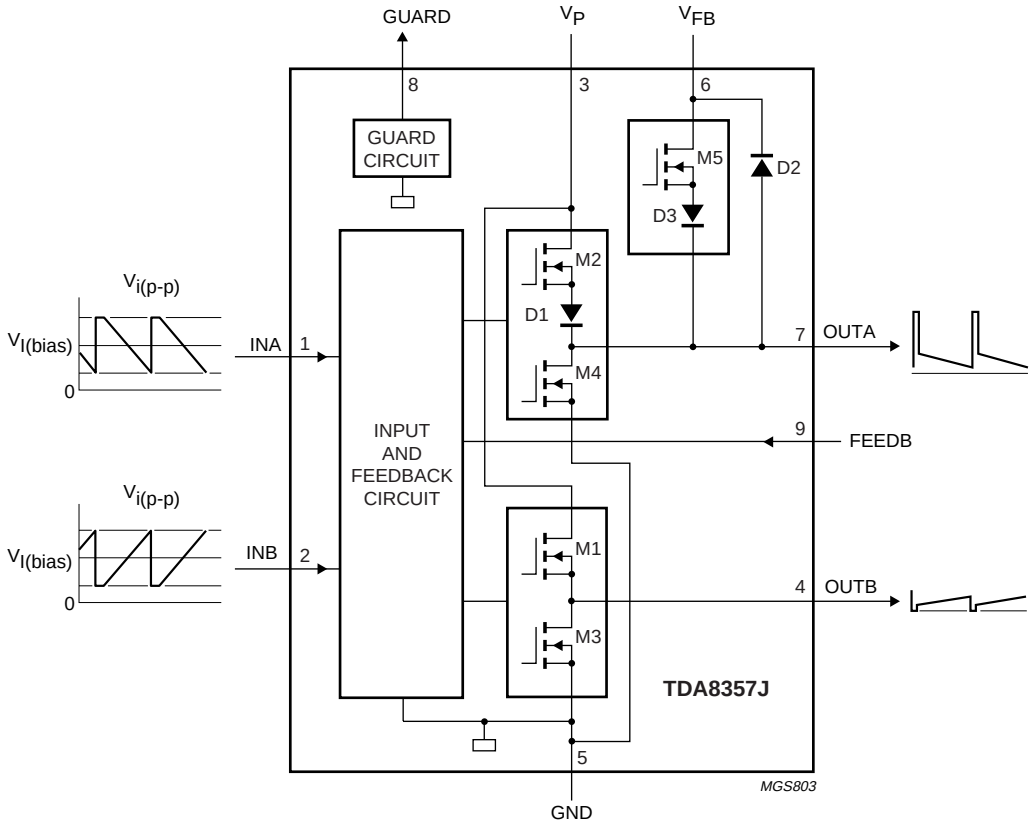
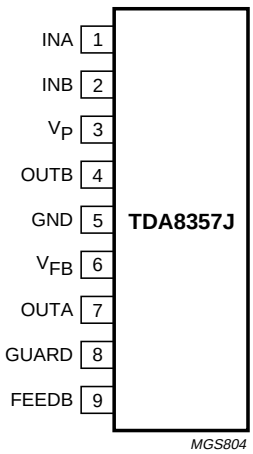


Fig.1 Block diagram.

PINNING

SYMBOL	PIN	DESCRIPTION
INA	1	input A
INB	2	input B
V_P	3	supply voltage
OUTB	4	output B
GND	5	ground
V_{FB}	6	flyback supply voltage
OUTA	7	output A
GUARD	8	guard output
FEEDB	9	feedback input



The exposed die pad is connected to pin GND.

Fig.2 Pin configuration.

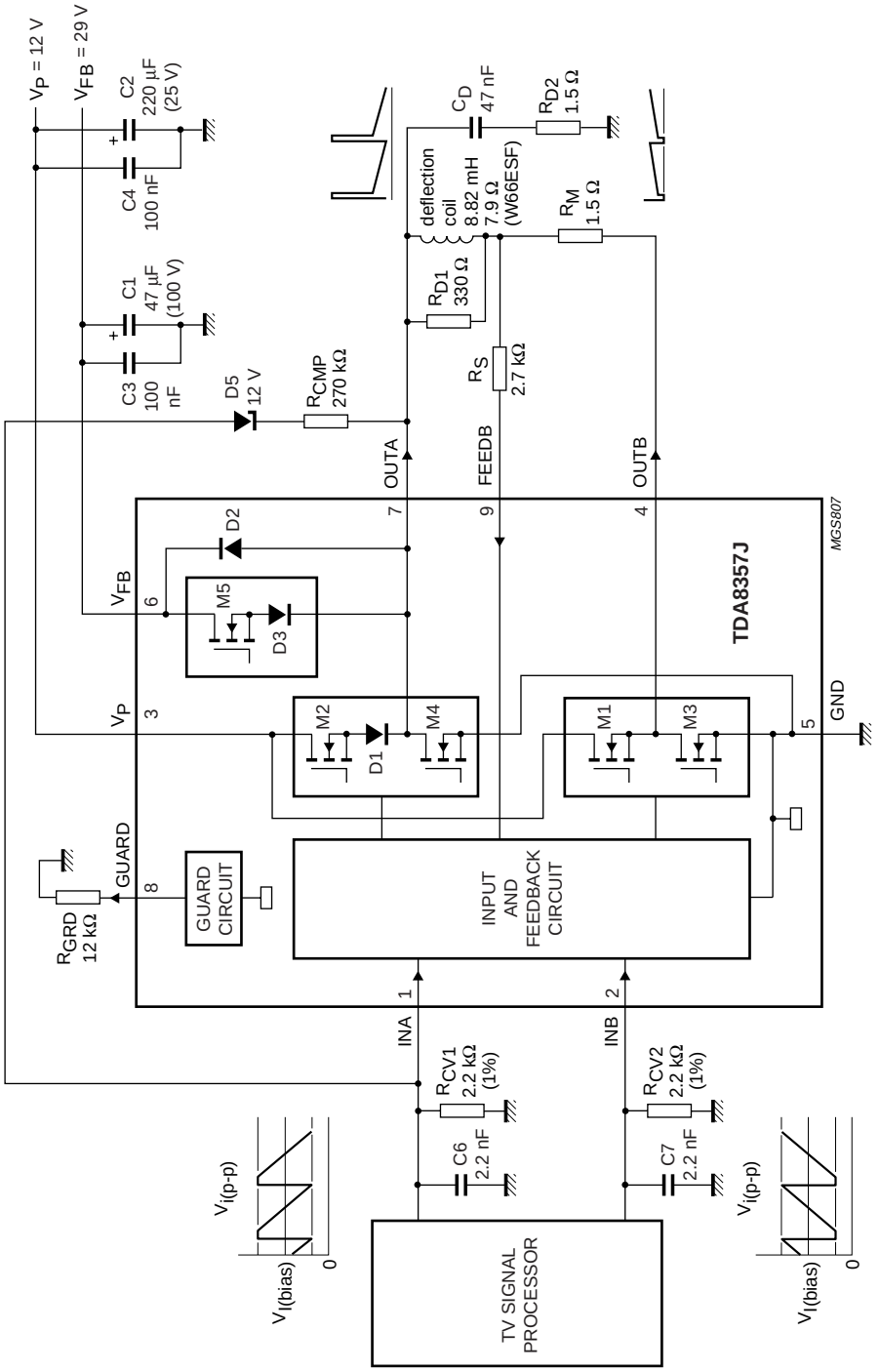


Fig.4 Application diagram.

f_{vert} = 50 Hz; t_{FB} = 640 µs; $I_{I(bias)}$ = 400 µA; $I_{I(p-p)}$ = 475 µA; $I_{O(p-p)}$ = 1.4 A.

5.4 TDA6107AJF

The TDA6107AJF includes three video output amplifiers and is intended to drive the three cathodes of a colour CRT directly. The device is contained in a plastic DIL-bent-SIL 9-pin medium power(DBS9MPF) package, and uses high-voltage DMOS technology.

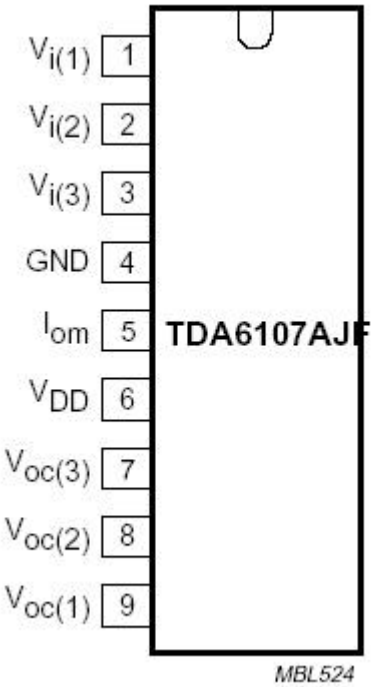
To obtain maximum performance, the amplifier should be used with black-current control.

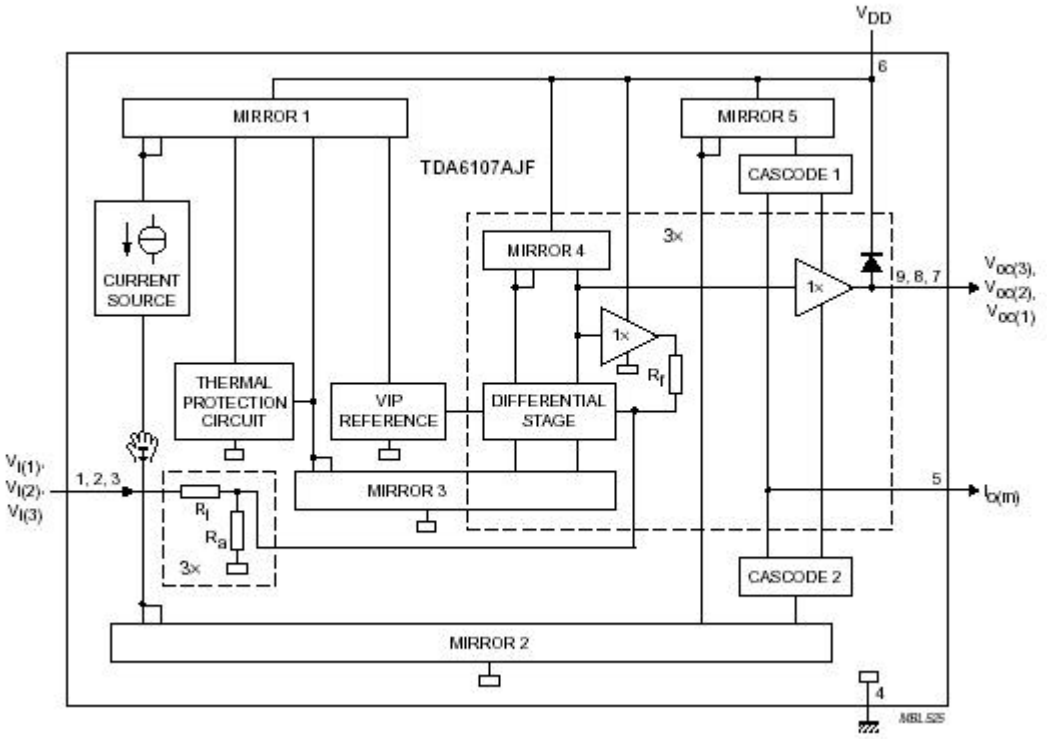
5.4.1 Features

- Typical bandwidth of 5.5 MHz for an output signal of 60 Vpp
- High slew rate of 900V/µs
- No external components required
- Very simple application
- Single supply voltage of 200V
- Internal reference voltage of 2.5 V
- Fixed gain of 81.
- Black-current stabilisation (BCS) circuit with voltage window from 1.8 to 6 V and current window form 100uA to -10mA
- Thermal protection
- Internal protection against positive flashover discharges appearing on the CRT

5.4.2 Pin description

Pin	Symbol	Description
1	$V_{i(1)}$	inverting input 1
2	$V_{i(2)}$	inverting input 2
3	$V_{i(3)}$	inverting input 3
4	GND	ground (fin)
5	I_{om}	black current measurement output
6	V_{DD}	supply voltage
7	$V_{OC(3)}$	cathode output 3
8	$V_{OC(2)}$	cathode output 2
9	$V_{OC(1)}$	cathode output 1





Block diagram TDA6107AJF

5.5 24WC16 - 16 KB EEPROM

Features :

- 16 Kbit serial I2C bus EEPROM
- 400KHz I2C Bus Compatible
- supply voltage : 1.8 V to 6.0 V
- Low Power CMOS Technology
- 1 Million Erase/Write cycles (minimum)
- 100 year data retention (minimum)

Pin description

Pin No.	Name	Description
1, 2, 3	A0, A1, A2	Device address – not used
5	SDA	Serial Data/Address Input/Output
6	SCL	Serial clock
7	WP	Write control
8	Vcc	Supply voltage
4	Vss	Ground

The memory device is compatible with the I2C memory standard. This is a two wire serial interface that uses a bi-directional data bus and serial clock. The memory carries a built-in 4-bit unique device type identifier code (1010) in accordance with the I2C bus definition.

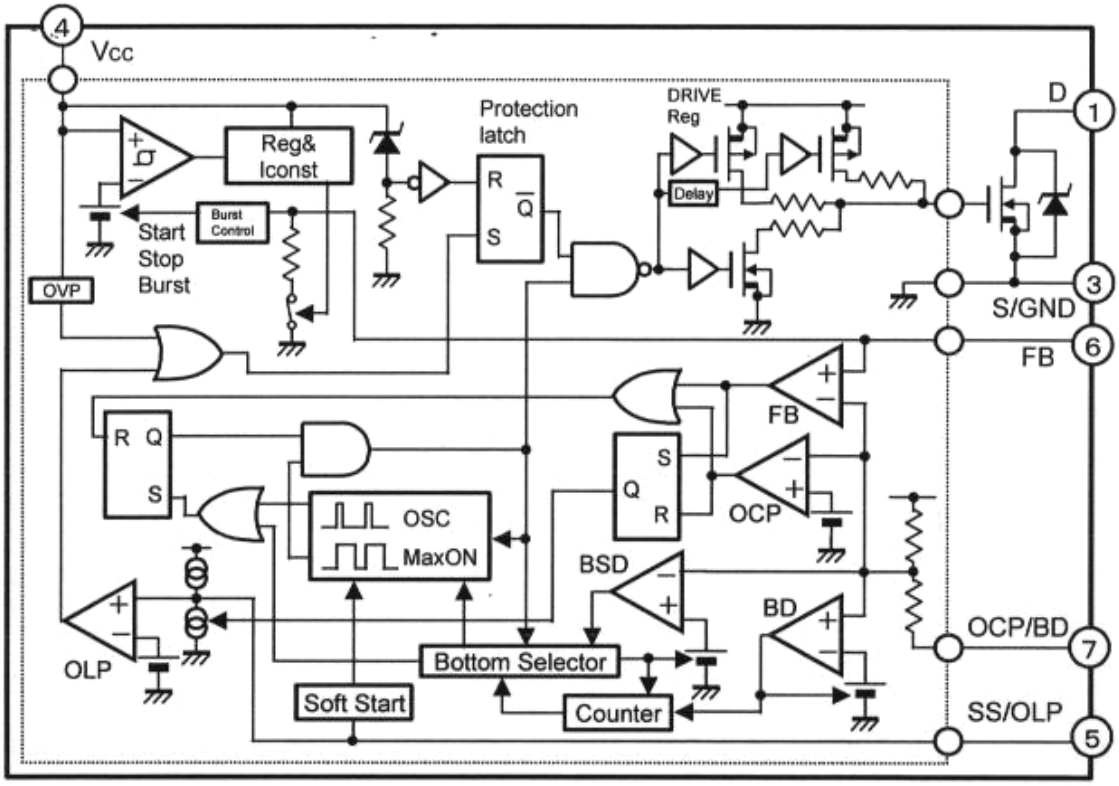
Serial Clock (SCL)
The SCL input is used to strobe all data in and out of the memory.
Serial Data (SDA)
The SDA pin is bi-directional, and is used to transfer data in or out of the memory.

5.6 STR-W6753/4

5.6.1 Functions of Each Terminal

端子番号 Terminal No.	端子記号 Symbols	名称 Descriptions	機　　能 Functions
1	D	ドレイン端子 Drain terminal	MOSFET ドレイン MOSFET drain
3	S/GND	ソース/グランド端子 Source /Ground terminal	MOSFET ソース及びグランド MOSFET Source / Ground
4	Vcc	電源端子 Power supply terminal	制御回路電源入力 Input of power supply for control circuit
5	SS/OLP	ソフトスタート／過負荷時遅延設定端子 Delay at Overload/Soft Start set up Terminal	過負荷検出及びソフトスタート動作の時間設定 Overload Protection and Soft Start Operation Time set up
6	FB	フィードバック端子 Feedback terminal	定電圧制御信号入力/間欠発振制御 Constant Voltage Control Signal Input, Burst(intermittent) mode Oscillation Control
7	OCP/BD	過電流保護入力／ボトム検出端子 Overcurrent Protection Input /Bottom Detection Terminal	過電流検出信号入力/ボトム検出信号入力 Overcurrent Detection Signal Input /Bottom Detection Signal Input

5.6.2 Block Diagram(Connection diagram)



※1 MOS FET A.S.O.曲線参照
Refer to MOS FET A.S.O. curve
※2 最大スイッチング電流について
Maximum switching current
最大スイッチング電流とはIC内部のドライブ電圧とMOS FETのVthにより決定するドレイン電流です。
The maximum switching current is the Drain current determined by the drive voltage of the IC and threshold voltage (Vth) of the MOS FET.
※3 MOS FET Tch-E_{AS} 曲線参照
Refer to MOS FET Tch-E_{AS} curve
※4 MOS FET Ta-P_{DI} 曲線参照
Refer to MOS FET Ta-P_{DI} curve

4 電気的特性
Electrical characteristics

4-1 制御部電気的特性（特記なき場合の条件 Ta=25℃,V_{CC}=20V）
Electrical characteristics in Control Part(Ta=25℃,V_{CC}=20V,unless otherwise specified)

項目 Parameter	端子 Terminal	記号 Symbol	規格値 Ratings MIN	TYP	MAX	単位 Units	測定条件 Measurement Conditions
電源起動動作 Power Supply Start-up Operation							
動作開始電源電圧 Operation start voltage	4 - 3	$V_{CC(ON)}$	16.3	18.2	19.9	V	
動作停止電源電圧 Operation stop voltage	4 - 3	$V_{CC(OFF)}$	8.8	9.7	10.6	V	
動作時回路電流 Circuit current in operation	4 - 3	$I_{CC(ON)}$	—	—	6	mA	
非動作時回路電流 Circuit current in non-operation	4 - 3	$I_{CC(OFF)}$	—	—	100	μA	
発振周波数 Oscillation Frequency	1 - 3	fosc	19	22	25	kHz	
ソフトスタート動作停止電圧 Soft Start Operation Stop Voltage	5 - 3	$V_{SSOLP(SS)}$	1.1	1.2	1.4	V	
ソフトスタート動作充電電流 Soft Start Operation Charging Current	5 - 3	$I_{SSOLP(SS)}$	-710	-550	-390	μA	
通常動作 Normal Operation							P.6～7 参照 Refer to page P.6~ P7
ボトムスキップ動作しきい値電圧 1 Bottom-Skip Operation Threshold Voltage1	7 - 3	$V_{OCPBD(BS1)}$	-0.720	-0.660	-0.605	V	
ボトムスキップ動作しきい値電圧 2 Bottom-Skip Operation Threshold Voltage2	7 - 3	$V_{OCPBD(BS2)}$	-0.485	-0.435	-0.385	V	
過電流検出しきい値電圧 Overcurrent Detection Threshold Voltage	7 - 3	$V_{OCPBD(LIM)}$	-0.995	-0.940	-0.895	V	
OCP/BD 端子流出電流 OCP/BD Terminal Outflow Current	7 - 3	I_{OCPBD}	-250	-100	-40	μA	
擬似共振動作しきい値電圧 1 Quasi-Resonant Operation Threshold Voltage 1	7 - 3	$V_{OCPBD(TH1)}$	0.28	0.40	0.52	V	
擬似共振動作しきい値電圧 2 Quasi-Resonant Operation Threshold Voltage 2	7 - 3	$V_{OCPBD(TH2)}$	0.67	0.80	0.93	V	
FB 端子しきい値電圧 FB Terminal Threshold Voltage	6 - 3	$V_{FB(OFF)}$	1.32	1.45	1.58	V	
FB 端子流入電流（通常時） FB Terminal Inflow Current(Normal Operation)	6 - 3	$I_{FB(ON)}$	600	1000	1400	μA	

項目 Parameter	端子 Terminal	記号 Symbol	規格値 Ratings MIN	TYP	MAX	単位 Units	測定条件 Measurement Conditions
スタンバイ動作 Stand-by Operation							P.6～7 参照 Refer to page P.6– P7
スタンバイ時動作開始電源電圧 Stand-by Operation start Voltage	4 - 3	$V_{CC(S)}$	10.3	11.1	12.1	V	
スタンバイ時電源電圧間隔 Stand-by Operation start Voltage Interval	4 - 3	$V_{CC(SK)}$	1.10	1.35	1.65	V	
スタンバイ時非動作時回路電流 Stand-by Non-Operation Circuit Current	4 - 3	$I_{CC(S)}$	—	20	56	μA	
FB 端子流入電流（スタンバイ時） FB Terminal Inflow Current(Stand-by)	6 - 3	$I_{FB(S)}$	—	4	14	μA	
FB 端子スタンバイ動作しきい値電圧 Stand-by Operation FB Terminal Threshold Voltage	6 - 3	$V_{FB(S)}$	0.55	1.10	1.50	V	
最小 ON 時間 Minimum ON Time	1 - 3	$T_{ON(MIN)}$	0.4	0.8	1.2	μSec	
保護動作 Protection Operation							
最大 ON 時間 Maximum ON Time	1 - 3	$T_{ON(MAX)}$	27.5	32.5	39.0	μSec	
OLP 動作しきい値電圧 OLP Operation Threshold Voltage	5 - 3	$V_{SSOLP(OLP)}$	4.0	4.9	5.8	V	
OLP 動作時充電電流 OLP Operation Charging Current	5 - 3	$I_{SSOLP(OLP)}$	-16	-11	-6	μA	
OVP 動作電源電圧 OVP Operation Voltage	4 - 3	$V_{CC(OVP)}$	25.5	27.7	29.9	V	
ラッチ 回路保持電流 ※6 Latch Circuit Holding Current	4 - 3	$I_{CC(H)}$	—	45	140	μA	
ラッチ 回路解除電源電圧 ※6 Latch Circuit Release Voltage	4 - 3	$V_{CC(La.OFF)}$	6.0	7.2	8.5	V	

※6 ラッチ回路とは、OVP, OLP により動作する回路を示す。
The latch circuit means a circuit operated O.V.P and O.L.P.
※7 電流の規定は IC を基準として、シンクが＋、ソースがーとする。
The current ratings are based on those of the IC , and plus(+) represents sink and minas(-) represents source.

4-2 MOSFET 部電気的特性（Ta=25℃）
Electrical characteristics in MOSFET(Ta=25℃)

項目 Parameter	端子 Terminal	記号 Symbol	規格値 Ratings MIN	TYP	MAX	単位 Units	測定条件 Measurement Conditions
ドレイン・ソース間電圧 Drain-to-Source breakdown voltage	1−3	V_{DSS}	650	—	—	V	P.8 参照 Refer to P.8
ドレイン漏れ電流 Drain leakage current	1−3	I_{DSS}	—	—	300	μA	
ON 抵抗 On-resistance	1−3	$R_{DS(ON)}$	—	—	0.96	Ω	
スイッチング・タイム Switching time	1−3	tf	—	—	400	nSec	
熱抵抗 Thermal resistance	—	θ ch-F	—	—	1.6	℃/W	チャネル内部フレーム間 Between channel and internal frame

5.6.3 CONTROL PART - ELECTRICAL CHARACTERISTICS

DESCRIPTION	IC PIN NUMBER	SYMBOL	RATING			UNIT
			MIN.	TYPE	MAX	
Operation start voltage	4-3	V_{IN} (on)	16.3	18.2	19.9	V
Operation stop voltage	4-3	V_{IN} (off)	8.8	9.7	10.6	V
Circuit current in operation	4-3	I_{IN} (on)	-	-	6	mA
Circ. current in non-operation	4-3	I_{IN} (off)	-	-	100	µA
Maximum ON time	1-3	T_{ON} (max)	27.5	32.5	39.0	µSEC
Minimum ON time	1-3	T_{ON} (min)	0.4	0.8	1.2	µSEC
OVP operation voltage	4-3	V_{IN} (OVP)	25.5	27.5	29.9	V
Latch circuit release voltage	4-3	V_{IN} (Loff)	6.0	7.2	8.5	V

6 SPECIFICATIONS

6.1 FEATURES

- MULTI SYSTEM(PAL/NTSC)
- DVD Type: DVD/DVD+RW/DVD-RW/DVD-R
- CD Type: CD/CD-R/CD-RW
- Video Format: DVD/VCD/SVCD/JPEG/MPG/Mini DVD
- Audio Format: CDDA/MP3
- Disc size: 8cm/12cm
- Minimum S/N Ratio on Video : 60dB

6.2 DVD CONVENIENCE

- STEP FORWARD at PAUSE: FRAME BY FRAME except reverse
- Fast Forward/Fast Reverse DVD : x2, x4, x8, x32
- Fast Forward/Fast Reverse VCD: x2, x4, x8
- Fast Forward/Fast Reverse CDMA MP3: x2, x4, x8
- Slow Play(Forward/Reverse) DVD : x1/2, x1/4, x1/8, x1/32
- Slow Play(Forward) VCD: x1/2, x1/4, x1/8
- Search: Title/A11, Track(CD)/Chapter, Time search
- Repeat: Disc/Title/Chapter/A-B(DVD) ----> X/0/0/0
  Disc/Track/A-B(CD/VCD) ----> 0/0/0
  Disc/Track/Dir.(MP3) ----> X/0/0
- Resume Stop Function
- ZOOM: x2, x4
- Screen Saver On/Off(MP3/CDDA/Stop/Still/Disc Open)
- Parental Lock Control
- “.jpg” files playback(Rotation/Slide show)
- Audio Switchable Output(Digital Coaxial): LPCM/BITSTREAM SELECTION
- Program Play(CDDA, MP3 only)
- 4:3 P&S/4:3LB/WIDE
- Upgradeable Flash Memory Capability
- PBC For VCD 2.0 or SVCD
- Picture Mode Selector : 4x3, 16x9, Letter Box
- Multi Angle Function
- OSD Language Choice
- Audio Choice
- Subtitle Choise
- Disc Menu Language Choice
- 3D Virtual Surround
- Still picture/freeze frame

6.3 DVD-TV CONNECTION .

6.3.1 PD01

No of PIN	DISCRIPTION
1	DVD B
2	DVD R
3	DVD G
4	GND
5	DVD CVBS
6	GND
7	Host Acknowledge
8	GND
9	Host Data In
10	GND
11	DVD 3.3VZ
12	DVD 3.3V
13	GND
14	DVD 1.8V
15	GND
16	DVD 5V
17	DVD 5V
18	GND
19	DVD 12V

6.3.2 PD02

No of PIN	DISCRIPTION
1	Not Connected.
2	Not Connected.
3	Host Data Out
4	Request
5	Mute
6	SPDIF
7	GND
8	Digital Data
9	Digital Data
10	Digital Data
11	SCK
12	GND
13	GND
14	GND
15	Host Strobe

6.4 TIP

A. Not display blue Logo Picture.(or Not turning)
--> a.Check DVD 3.3V at PD01 # 11,12 TV side pulling out connector.
: DVD 3.3V is 3.25V ~ 3.45V
: Check DVD 5V,12V,1.8V.
--> b.Check PAD01,PAD02.
: Change direction DVD and TV.
: Observe defected connector lines.
--> c.Check communication lines.
: Host Data In/Out, Acknowledge,Host strobe,Request.
B. DVD Firmware Version check.
--> OPEN-DISPLAY-UP-DOWN-LEFT-RIGHT.
C. Region Code check.
--> OPEN-0-5-2-0-UP-DOWN-LEFT-RIGHT.
: Check Region with Title.(Default/Europe is Region 2)

* Exception above, you must substitute DVD module by module.”
* CP-093F (21 INCH) is NO SOUND when AV2 PCB is not connected.

7. Service part list

DDT-14H9ZTF

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
ZZ100	48B5552C03	TRANSMITTER REMOCON	R-52C03 (AAA)	
ZZ110	PTACPWA955	ACCESSORY AS	DDT-14H9ZTF	
00010	4850Q00910	BATTERY	R03/NN	
ZZ120	PTBCSHA955	COVER BACK AS	DDT-14H9ZTF	
M211	4852170911	COVER BACK	HIPS GY	
M541	4855415800	SPEC PLATE	150ART P/E FILM (C/TV)	
M781	4857817610	CLOTH BLACK	FELT 300X20X0.7	
ZZ130	PTPKCPA955	PACKING AS	DDT-14H9ZTF	
10	6520010100	STAPLE PIN	AUTO W65	
M801	4858035800	BOX CARTON	"SW-3 DVT-1488,1484"	
M811	485819AG00	PAD	EPS	
M821	4858215701	BAG P.E	PE FOAM t0.5x1050x950	
ZZ131	48519A4710	CRT GROUND NET	1401S-1015-1P	
ZZ132	58G0000084	COIL DEGAUSSING	DC-1450	
ZZ140	PTCACAA955	CABINET AS	DDT-14H9ZTF	
M191	4851951600	BUTTON CTRL	4959511+5552700	
M191A	7178301011	SCREW TAPPTITE	TT2 WAS 3X10 MFZN	
M201A	4856017303	SCREW CRT FIX	5X30 L80 BK	
M201B	4856017307	SCREW CRT FIX	5X30 L140 YL	
M201C	4856219502	WASHER RUBBER	CR T2.0 BLACK	
M201D	4854867611	BUTTON POWER	ABS GY	
M211A	7172401612	SCREW TAPPTITE	TT2 TRS 4X16 MFZN BK	
M211B	7178301212	SCREW TAPPTITE	TT2 WAS 3X12 MFZN BK	
M281	4852824811	DOOR CD	HIPS GY	
M281A	4855800018	LABEL(BADGE DVD)	NI+CR	
M561	48556175SD	MARK BRAND	SILVER DIA-CUTTING	
M671	4856716000	SPRING	SWPA PIE0.5	
SP601	7178301011	SCREW TAPPTITE	TT2 WAS 3X10 MFZN	
SP602	7178301011	SCREW TAPPTITE	TT2 WAS 3X10 MFZN	
V901	4859606240	CRT	A34EAC01X06	
ZZ200	PTFMSJA955	MASK FRONT AS	DDT-14H9ZTF	
M201	4852087511	MASK FRONT	HIPS GY	
ZZ210	PTSPPWA853	SPEAKER AS	DDT-14H9ZZF	
PA601	4850703S50	CONNECTOR	YH025-03+35098+ULW=200	
PA602	4850703S50	CONNECTOR	YH025-03+35098+ULW=200	
SP01	4858314010	SPEAKER	SP-5070F01 3W 8 OHM	
SP02	4858314010	SPEAKER	SP-5070F01 3W 8 OHM	
ZZ290	PTMPMSA955	PCB MAIN MANUAL AS	DDT-14H9ZTF	
10	2193102005	SOLDER BAR	SN:PB=63:37 S63S-1320	
30	2291050616	FLUX SOLDER	JS-64T3	
40	2291050301	FLUX SOLVENT	IM-1000	
C402	CMYH3C722J	C MYLAR	1.6KV BUP 7200PF J	
C408	CMYE2D624J	C MYLAR	200V PU 0.62MF J	
C801	CL1UC3474M	C LINE ACROSS	0.47MF 1J(UCVSNDF/SV)+Q/O	
C802	CH1BFE472M	C CERA AC	AC400V 4700PF M U/C/V	
C805	CEYD2G181D	C ELECTRO	400V FHS 180MF (25X35)	
C810	CCYR3D102K	C CERA	2KV R 1000PF K 125 DE1207	
C814	CEYF2C101V	C ELECTRO	160V RSS 100MF (16X25)	
C830	CEYF2C101V	C ELECTRO	160V RSS 100MF (16X25)	
D810	DEGP50D—-	DIODE	EGP50D (TAPPING)	
D814	DD3S6M2004	DIODE	D3S6MP2004	
D815	DRGP30J—-	DIODE	RGP30J DO-201AD 600V 3A	
D820	DD3S6M2004	DIODE	D3S6MP2004	
DQ01	DLH3PRG—-	LED BLOCK	LH-3P-RG	
I301	PTF2SW7910	HEAT SINK ASS`Y	1TDA8357J- + 7174300811	
00001	1TDA8357J-	IC VERTICAL	TDA8357J	
0000A	4857027910	HEAT SINK	AL EX	
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
I502	124LC16B1B	IC MEMORY	24LC16B1B	
I601	PTE2SW4421	HEAT SINK ASS`Y	1TDA8944J- + 7174300811	
00001	1TDA8944J-	IC SOUND	TDA8944J	
0000A	4857024421	HEAT SINK	AL EX	
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
I801	PTM2SW4600	HEAT SINK ASS`Y	1STRW6753- + 7174300811	
00001	1STRW6753-	IC POWER	STR-W6753	
0000A	4857024600	HEAT SINK	AL EX B/K	
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
I802	1LTV817C—-	IC PHOTO COUPLER	LTV-817C	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
I803	1K1A78R05A	IC REGULATOR	K1A78R05AP1 5.0V 1.0A TO-220	
I804	PT22SW7800	HEAT SINK ASS`Y	1K1A78R05A + 7174300811	
00001	1K1A78R05A	IC REGULATOR	K1A78R05AP1 5.0V 1.0A TO-220	
0000A	4857027800	HEAT SINK	AL EX	
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
I805	PT32SW7800	HEAT SINK ASS`Y	1K1A78R33A + 7174300811	
00001	1K1A78R33A	IC REGULATOR	K1A78R33AP1 3.3V 1.0A TO-220	
0000A	4857027800	HEAT SINK	AL EX	
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
I806	1K78R12—-	IC REGULATOR	KIA78R12API	
I807	1K78R08—-	IC REGULATOR	KIA78R08API	
I809	1LD1117V50	IC REGULATOR	LD1117AV50 5.0V 2% TO-220	
I810	1DP110——	IC ERROR AMP	DP110	
I811	PTT2SW6902	HEAT SINK ASS`Y	1LD1117V33 + 7174300811	
00001	1LD1117V33	IC REGULATOR	LD1117AV33 3.3V 2% TO-220	
0000A	4857026902	HEAT SINK	AL EX BK	
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
I901	PTM1SW8902	HEAT SINK ASS`Y	1TDA6107AJ + 7174300811	
00001	1TDA6107AJ	IC VIDEO	TDA6107AJF	
0000A	4857018902	HEAT SINK	A1050P-H24	
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
ID02	1KA4558—-	IC AMP	KA4558	
IQ01	1KRT30——	IC PREAMP	KRT30	
JPA01	4859200401	SOCKET RGB	YRS21-R1	
JPA03	4859102130	JACK EARPHONE	YSC-1537	
JPA04	4859111450	JACK PIN BOARD	YSC03P-5120-L	
L403	58H0000018	COIL H-LINEARITY	L-125 (125UH)	
LF801	5PLF24A3—	FILTER LINE	LF-24A3	
M193	4850M09010	MODULE DVD LOADER	DQL-2308-7D1TEN	
M193A	7178301212	SCREW TAPPTITE	TT2 WAS 3X12 MFZN BK	
M221	4853820800	FRAME MAIN PCB	FR HIPS BK	
M221A	7178301011	SCREW TAPPTITE	TT2 WAS 3X10 MFZN	
M391	4853953700	BRKT EARTH	C512P-1/2M T0.2	
M392	4853953700	BRKT EARTH	C512P-1/2M T0.2	
M393	4853953700	BRKT EARTH	C512P-1/2M T0.2	
M721	4857250100	SHIELD CASE	ET T0.5	
M722	4857251300	SHIELD BOTTOM	ET T0.4	
M722A	7178301011	SCREW TAPPTITE	TT2 WAS 3X10 MFZN	
P401	4859240120	CONN WAFER	YFW500-06	
P802	4859242220	CONN WAFER	YFW800-02	
PA101	4850701V01	CONNECTOR	RINGTERM4.3+USW=200	
PA901	4850704S04	CONNECTOR	YH025-04+YST025+ULW=400	
PA902	4850705S04	CONNECTOR	YH025-05+YBNH250+ULW=400	
PAD01	4859002960	CABLE FFC	1.0-K-19P-100MM 10X5-10X5 AL	
PAD02	4859002860	CABLE FFC	1.0-K-15P-100MM 10X5-10X5 AL	
PD01	4859297220	CONN WAFER	GF102-19S-TS 19P ST	
PD02	4859297120	CONN WAFER	GF102-15S-TS 15P ST	
PWC1	4859906210	CORD POWER AS	LP-21R+H03VVH2+LOCK=2200	
Q401	PTV2SW4500	HEAT SINK ASS`Y	TST1803DH- + 7174300811	
00001	TST1803DH-	TR HORI	ST1803DHI	
0000A	4857024500	HEAT SINK	AL EX B/K	
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
R801	DEC140M290	POSISTOR	ECPCC140M290	
R803	RX10T339J-	R CEMENT	10W 3.3 OHM J TRIPOD	
SCT01	4859303430	SOCKET CRT	PCS633A	
SW801	5S40101146	SW POWER PUSH	SS-160-7-B	
T401	50D10A2—-	TRANS DRIVE	TD-10A2	
T402	50H0000209	FBT	LTC-508	
T801	50M4242C8-	TRANS SMPS	TSM-4242C8	
U100	4859722630	TUNER VARACTOR	TECC2949PG35W	
X501	5XJ24R576G	CRYSTAL QUARTZ	ATS-49/U 24.576000MHZ 10PPM	
Y801	5SC0101339	SW RELAY	SDT-S-105LMR	
Z101	5PK3953M—	FILTER SAW	K3953M	
Z102	5PK9650M—	FILTER SAW	K9650M	
ZZ200	PTMPJ2A955	PCB MAIN CHIP MOUNT B	AS DDT-14H9ZTF	
CC103	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
CC104	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
CC107	HCQK470JBA	C CHIP CERA	50V CH 47PF J 1608	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
CC108	HCQK470JBA	C CHIP CERA	50V CH 47PF J 1608	
CC120	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
CC123	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
CC304	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
CC404	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
CC503	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
CC504	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
CC511	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
CC514	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
CC518	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
CC521	HCBK222KBA	C CHIP CERA	50V X7R 2200PF K 1608	
CC528	HCBK223KBA	C CHIP CERA	50V X7R 0.022MF K 1608	
CC531	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
CC532	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
CC533	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
CC541	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
CC556	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
CC558	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
CC568	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
CC570	HCBK561KBA	C CHIP CERA	50V X7R 560PF K 1608	
CC571	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
CC572	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
CC573	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
CC575	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
CC576	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
CC578	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
CC580	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
CC590	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
CC591	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
CC665	HCBK332KBA	C CHIP CERA	50V X7R 3300PF K 1608	
CC666	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
CC667	HCBK332KBA	C CHIP CERA	50V X7R 3300PF K 1608	
CC819	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
CC821	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
CC833	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
CC835	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
CC837	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
CCA01	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
CCA02	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
CCA03	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
CCA10	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
CCD02	HCBK391KBA	C CHIP CERA	50V X7R 390PF K 1608	
CCD04	HCQK331JBA	C CHIP CERA	50V CH 330PF J 1608	
CCD09	HCBK391KBA	C CHIP CERA	50V X7R 390PF K 1608	
CCD11	HCQK331JBA	C CHIP CERA	50V CH 330PF J 1608	
CCD34	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
CCD83	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
CCD84	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
IC501	1TDA21HD01	IC MICOM FLASH	TDA12021H1(N1D01)	
ICD01	1PCM1754DD	IC CHIP DAC	PCM1754DBQ 16PIN SSOP REEL	
PA801	WP-1BK1515	WIRE LEAD 1007	AWG22 1/0.65 BK 5-150-5	
QC120	T2SC2412KB	TR CHIP	2SC2412K-T146-BR	
QC501	T2SC2412KB	TR CHIP	2SC2412K-T146-BR	
QC502	T2SA1037KB	TR CHIP	2SA1037AKT146-R	
QC508	T2SC2412KB	TR CHIP	2SC2412K-T146-BR	
QC601	T2SC2412KB	TR CHIP	2SC2412K-T146-BR	
QC602	T2SA1037KB	TR CHIP	2SA1037AKT146-R	
QC801	T2SC2412KB	TR CHIP	2SC2412K-T146-BR	
QC802	T2SC2412KB	TR CHIP	2SC2412K-T146-BR	
QC805	T2SC2412KB	TR CHIP	2SC2412K-T146-BR	
QCD40	T2SC2412KB	TR CHIP	2SC2412K-T146-BR	
QCD41	T2SC2412KB	TR CHIP	2SC2412K-T146-BR	
QCD42	T2SC2412KB	TR CHIP	2SC2412K-T146-BR	
RC103	HRFT123JBA	R CHIP	1/10 12K OHM J 1608	
RC104	HRFT683JBA	R CHIP	1/10 68K OHM J 1608	
RC114	HRFT473JBA	R CHIP	1/10 47K OHM J 1608	
RC115	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
RC120	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
RC131	HRFT472JBA	R CHIP	1/10 4.7K OHM J 1608	
RC154	HRFT000JBA	R CHIP	1/10 0 OHM J 1608	
RC308	HRFT562JBA	R CHIP	1/10 5.6K OHM J 1608	
RC404	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
RC500	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
RC501	HRFT332JBA	R CHIP	1/10 3.3K OHM J 1608	
RC502	HRFT332JBA	R CHIP	1/10 3.3K OHM J 1608	
RC507	HRFT332JBA	R CHIP	1/10 3.3K OHM J 1608	
RC508	HRFT332JBA	R CHIP	1/10 3.3K OHM J 1608	
RC510	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
RC514	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
RC516	HRFT153JBA	R CHIP	1/10 15K OHM J 1608	
RC520	HRFT122JBA	R CHIP	1/10 1.2K OHM J 1608	
RC537	HRFT183JBA	R CHIP	1/10 18K OHM J 1608	
RC541	HRFT393JBA	R CHIP	1/10 39K OHM J 1608	
RC543	HRFT222JBA	R CHIP	1/10 2.2K OHM J 1608	
RC547	HRFT563JBA	R CHIP	1/10 56K OHM J 1608	
RC548	HRFT152JBA	R CHIP	1/10 1.5K OHM J 1608	
RC551	HRFT823JBA	R CHIP	1/10 82K OHM J 1608	
RC552	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
RC553	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
RC560	HRFT222JBA	R CHIP	1/10 2.2K OHM J 1608	
RC571	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
RC572	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
RC573	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
RC582	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
RC583	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
RC584	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
RC589	HRFT153JBA	R CHIP	1/10 15K OHM J 1608	
RC598	HRFT182JBA	R CHIP	1/10 1.8K OHM J 1608	
RC601	HRFT152JBA	R CHIP	1/10 1.5K OHM J 1608	
RC602	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
RC610	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
RC611	HRFT223JBA	R CHIP	1/10 22K OHM J 1608	
RC661	HRFT392JBA	R CHIP	1/10 3.9K OHM J 1608	
RC665	HRFT392JBA	R CHIP	1/10 3.9K OHM J 1608	
RC760	HRFT331JBA	R CHIP	1/10 330 OHM J 1608	
RC761	HRFT122JBA	R CHIP	1/10 1.2K OHM J 1608	
RC767	HRFT331JBA	R CHIP	1/10 330 OHM J 1608	
RC830	HRFT472JBA	R CHIP	1/10 4.7K OHM J 1608	
RC831	HRFT472JBA	R CHIP	1/10 4.7K OHM J 1608	
RC832	HRFT472JBA	R CHIP	1/10 4.7K OHM J 1608	
RC834	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
RC835	HRFT473JBA	R CHIP	1/10 47K OHM J 1608	
RC843	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
RCA02	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
RCA03	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
RCA04	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
RCA06	HRFT750JBA	R CHIP	1/10 75 OHM J 1608	
RCA08	HRFT750JBA	R CHIP	1/10 75 OHM J 1608	
RCA09	HRFT750JBA	R CHIP	1/10 75 OHM J 1608	
RCA13	HRFT222JBA	R CHIP	1/10 2.2K OHM J 1608	
RCA16	HRFT750JBA	R CHIP	1/10 75 OHM J 1608	
RCA19	HRFT750JBA	R CHIP	1/10 75 OHM J 1608	
RCD01	HRFT510JBA	R CHIP	1/10 51 OHM J 1608	
RCD02	HRFT510JBA	R CHIP	1/10 51 OHM J 1608	
RCD03	HRFT510JBA	R CHIP	1/10 51 OHM J 1608	
RCD04	HRFT201JBA	R CHIP	1/10 200 OHM J 1608	
RCD05	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
RCD06	HRFT113JBA	R CHIP	1/10 11K OHM J 1608	
RCD07	HRFT561JBA	R CHIP	1/10 560 OHM J 1608	
RCD08	HRFT132JBA	R CHIP	1/10 1.3K OHM J 1608	
RCD09	HRFT223JBA	R CHIP	1/10 22K OHM J 1608	
RCD14	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
RCD15	HRFT113JBA	R CHIP	1/10 11K OHM J 1608	
RCD16	HRFT561JBA	R CHIP	1/10 560 OHM J 1608	
RCD17	HRFT132JBA	R CHIP	1/10 1.3K OHM J 1608	
RCD18	HRFT223JBA	R CHIP	1/10 22K OHM J 1608	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
RCD23	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
RCD24	HRFT333JBA	R CHIP	1/10 33K OHM J 1608	
RCD25	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
RCD26	HRFT333JBA	R CHIP	1/10 33K OHM J 1608	
RCD30	HRFT241JBA	R CHIP	1/10 240 OHM J 1608	
RCD41	HRFT471JBA	R CHIP	1/10 470 OHM J 1608	
RCD42	HRFT471JBA	R CHIP	1/10 470 OHM J 1608	
RCD80	HRFT750JBA	R CHIP	1/10 75 OHM J 1608	
RCD81	HRFT750JBA	R CHIP	1/10 75 OHM J 1608	
RCD82	HRFT750JBA	R CHIP	1/10 75 OHM J 1608	
RCD83	HRFT750JBA	R CHIP	1/10 75 OHM J 1608	
ZZ200	PTMPJ0A955	PCB MAIN (RHU) AS	DDT-14H9ZTF	
C307	CEXF2A470V	C ELECTRO	100V RSS 47MF (10X16) TP	
C415	CEXF2E100V	C ELECTRO	250V RSS 10MF (10X20) TP	
C604	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
C803	CCXB3A472K	C CERA	1KV B 4700PF K (TAPPING)	
C804	CCXB3A472K	C CERA	1KV B 4700PF K (TAPPING)	
C815	CEXF1E102V	C ELECTRO	25V RSS 1000MF (13X20) TP	
C817	CEXF1E102V	C ELECTRO	25V RSS 1000MF (13X20) TP	
C818	CEXF1C222V	C ELECTRO	16V RSS 2200MF (13X25) TP	
C820	CEXF1C222V	C ELECTRO	16V RSS 2200MF (13X25) TP	
C834	CEXF1C471V	C ELECTRO	16V RSS 470MF (8X12)TP	
C836	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
C842	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
C965	CCXB3D102K	C CERA	2KV B 1000PF K (TAPPING)	
C998	CEXF2E100V	C ELECTRO	250V RSS 10MF (10X20) TP	
ZZ200	PTMPJBA955	PCB MAIN M-10 AS	DDT-14H9ZTF	
E1	4856310300	EYE LET	BSR T0.2 (R1.6)	
E10	4856310600	EYE LET	BSR T0.2 (R2.3)	
E11	4856310300	EYE LET	BSR T0.2 (R1.6)	
E12	4856310300	EYE LET	BSR T0.2 (R1.6)	
E13	4856310300	EYE LET	BSR T0.2 (R1.6)	
E14	4856310300	EYE LET	BSR T0.2 (R1.6)	
E15	4856310600	EYE LET	BSR T0.2 (R2.3)	
E16	4856310300	EYE LET	BSR T0.2 (R1.6)	
E17	4856310300	EYE LET	BSR T0.2 (R1.6)	
E18	4856310300	EYE LET	BSR T0.2 (R1.6)	
E2	4856310300	EYE LET	BSR T0.2 (R1.6)	
E20	4856310600	EYE LET	BSR T0.2 (R2.3)	
E21	4856310600	EYE LET	BSR T0.2 (R2.3)	
E22	4856310600	EYE LET	BSR T0.2 (R2.3)	
E23	4856310300	EYE LET	BSR T0.2 (R1.6)	
E24	4856310300	EYE LET	BSR T0.2 (R1.6)	
E25	4856310300	EYE LET	BSR T0.2 (R1.6)	
E26	4856310600	EYE LET	BSR T0.2 (R2.3)	
E27	4856310600	EYE LET	BSR T0.2 (R2.3)	
E28	4856310600	EYE LET	BSR T0.2 (R2.3)	
E29	4856310300	EYE LET	BSR T0.2 (R1.6)	
E3	4856310600	EYE LET	BSR T0.2 (R2.3)	
E30	4856310300	EYE LET	BSR T0.2 (R1.6)	
E31	4856310300	EYE LET	BSR T0.2 (R1.6)	
E32	4856310300	EYE LET	BSR T0.2 (R1.6)	
E35	4856310600	EYE LET	BSR T0.2 (R2.3)	
E36	4856310600	EYE LET	BSR T0.2 (R2.3)	
E37	4856310300	EYE LET	BSR T0.2 (R1.6)	
E38	4856310300	EYE LET	BSR T0.2 (R1.6)	
E4	4856310300	EYE LET	BSR T0.2 (R1.6)	
E41	4856310600	EYE LET	BSR T0.2 (R2.3)	
E42	4856310600	EYE LET	BSR T0.2 (R2.3)	
E43	4856310600	EYE LET	BSR T0.2 (R2.3)	
E44	4856310600	EYE LET	BSR T0.2 (R2.3)	
E5	4856310600	EYE LET	BSR T0.2 (R2.3)	
E6	4856310600	EYE LET	BSR T0.2 (R2.3)	
E8	4856310600	EYE LET	BSR T0.2 (R2.3)	
P601	485923162S	CONN WAFER	YW025-03 (STICK)	
P602	485923162S	CONN WAFER	YW025-03 (STICK)	
P701	485923172S	CONN WAFER	YW025-04 (STICK)	
P801A	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
P801B	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
P901	485923172S	CONN WAFER	YW025-04 (STICK)	
P902	485923182S	CONN WAFER	YW025-05 (STICK)	
R807	RS02Z278JS	R M-OXIDE FILM	2W 0.27 OHM J SMALL	
R825	RS02Z828JS	R M-OXIDE FILM	2W 0.82 OHM J SMALL	
R920	RS02Z109JS	R M-OXIDE FILM	2W 1 OHM J SMALL	
ZZ200	PTMPJRA955	PCB MAIN RADIAL AS	DDT-14H9ZTF	
C102	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP	
C106	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP	
C109	CMXL1J474J	C MYLAR	63V MEU 0.47MF J	
C121	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C125	CEXF1E100V	C ELECTRO	25V RSS 10MF (5X11) TP	
C301	CMXM2A473J	C MYLAR	100V 0.047MF J (TP)	
C302	CMXM2A473J	C MYLAR	100V 0.047MF J (TP)	
C303	CEXF1E221V	C ELECTRO	25V RSS 220MF (8X11.5) TP	
C305	CEXF2C339V	C ELECTRO	160V RSS 3.3MF (8X16) TP	
C306	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
C401	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C403	CCXB2H222K	C CERA	500V B 2200PF K (TAPPING)	
C412	CEXF2C339V	C ELECTRO	160V RSS 3.3MF (8X16) TP	
C414	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
C421	CCXF1H473Z	C CERA	50V F 0.047MF Z (TAPPING)	
C423	CXCH2H470J	C CERA	500V CH 47PF J (TAPPING)	
C502	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP	
C505	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C507	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C508	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
C509	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C510	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
C513	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C515	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C516	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C517	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
C519	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C520	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C524	CMXM2A682J	C MYLAR	100V 6800PF J (TP)	
C525	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
C526	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C527	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C529	CMXL1J154J	C MYLAR	63V MEU 0.15MF J	
C534	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C535	CMXL1J474J	C MYLAR	63V MEU 0.47MF J	
C536	CMXL1J474J	C MYLAR	63V MEU 0.47MF J	
C537	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C538	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C539	CMXM2A332J	C MYLAR	100V 3300PF J (TP)	
C540	CMXM2A473J	C MYLAR	100V 0.047MF J (TP)	
C542	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C543	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C545	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C547	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C548	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C549	CMXL1J474J	C MYLAR	63V MEU 0.47MF J	
C552	CMXL1J474J	C MYLAR	63V MEU 0.47MF J	
C560	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C561	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C563	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C567	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C569	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP	
C574	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C576	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C577	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP	
C581	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C602	CEXF1C221V	C ELECTRO	16V RSS 220MF (8X11.5) TP	
C636	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP	
C637	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP	
C660	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C661	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
C662	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C668	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C669	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C770	CEXF1C101A	C ELECTRO	16V RSM 100MF (6.3X7) TP	
C806	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C808	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
C811	CMXM2A223J	C MYLAR	100V 0.022MF J TP	
C813	CCXB3A471K	C CERA	1KV B 470PF K (T)	
C824	CEXF1C101A	C ELECTRO	16V RSM 100MF (6.3X7) TP	
C825	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
C829	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11) TP	
C831	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
C832	CEXF1H101V	C ELECTRO	50V RSS 100MF (8X11.5) TP	
C838	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
C840	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C901	CCXF1H102Z	C CERA	50V F 1000PF Z (TAPPING)	
C968	CMXL2E104K	C MYLAR	250V MEU 0.1MF K	
CD01	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11) TP	
CD03	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP	
CD05	CEXF1C100V	C ELECTRO	RSS 16V 10MF 4*7	
CD08	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11) TP	
CD12	CEXF1C100V	C ELECTRO	RSS 16V 10MF 4*7	
CD15	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP	
CD82	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP	
CD84	CEXF1C100V	C ELECTRO	RSS 16V 10MF 4*7	
F801	5FWPS4022L	FUSE	WIDE TL 250V 4A CASE	
Q402	TKTC3209Y-	TR	KTC3209Y	
Q513	TKTA1266Y-	TR	KTA1266Y (TP)	
Q514	TH2N7000—	FET	H2N7000	
Q515	TH2N7000—	FET	H2N7000	
Q752	TKTA1266Y-	TR	KTA1266Y (TP)	
Q753	TKTC3198Y-	TR	KTC3198Y	
Q803	TKTC3203Y-	TR	KTC3203-Y	
Q804	TKTA1266Y-	TR	KTA1266Y (TP)	
Q813	TKTA1266Y-	TR	KTA1266Y (TP)	
Q814	TKTC3198Y-	TR	KTC3198Y	
Q815	TKTA1266Y-	TR	KTA1266Y (TP)	
Q816	TKTC3198Y-	TR	KTC3198Y	
Q825	TKSA1013Y-	TR	KSA1013Y (TP)	
QD01	TKTC3205Y-	TR	KTC3205Y (TP)	
R108	RN01B332JS	R METAL FILM	1W 3.3K OHM J SMALL	
R307	RN02B189JS	R METAL FILM	2W 1.8 OHM J SMALL	
R406	RN02B561JS	R METAL FILM	2W 560 OHM J SMALL	
R408	RN02B103JS	R METAL FILM	2W 10K OHM J SMALL	
R826	RN02B473JS	R METAL FILM	2W 47K OHM J SMALL	
R845	RN02B229JS	R METAL FILM	2W 2.2 OHM J SMALL	
SG01	4SG0DX0001	SPARK GAP	SSG-102-A1(1.0KV) TAP	
SG02	4SG0DX0001	SPARK GAP	SSG-102-A1(1.0KV) TAP	
SG03	4SG0DX0001	SPARK GAP	SSG-102-A1(1.0KV) TAP	
SG04	4SG0DX0001	SPARK GAP	SSG-102-A1(1.0KV) TAP	
SW01	5S50101Z90	SW TACT	THVV502GDA	
SW02	5S50101Z90	SW TACT	THVV502GDA	
SW03	5S50101Z90	SW TACT	THVV502GDA	
SW04	5S50101Z90	SW TACT	THVV502GDA	
SW05	5S50101Z90	SW TACT	THVV502GDA	
SW11	5S50101Z90	SW TACT	THVV502GDA	
SW12	5S50101Z90	SW TACT	THVV502GDA	
SW13	5S50101Z90	SW TACT	THVV502GDA	
SW14	5S50101Z90	SW TACT	THVV502GDA	
SW15	5S50101Z90	SW TACT	THVV502GDA	
Z601	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF	
Z602	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF	
ZA01	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF	
ZA02	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF	
ZA03	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF	
ZA04	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF	
ZA30	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF	
ZA31	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
ZA32	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF	
ZZ200	PTMPJAA955	PCB MAIN AXIAL AS	DDT-14H9ZTF	
A001	4859810193	PCB MAIN	330X246 D1B	
C512	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C522	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C523	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
C530	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)	
C544	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C546	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C551	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C564	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C565	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C566	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C592	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C597	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C598	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C599	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C807	CCZB1H103K	C CERA	HIKB 50V 0.01MF K AXIAL	
C809	CCZB1H821K	C CERA	50V B 820PF K AXIAL	
C812	CCZB1H471K	C CERA	50V B 470PF K (AXIAL)	
C826	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
CA04	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)	
CA06	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)	
D101	D1N4148—-	DIODE	1N4148 (TAPPING)	
D102	DBA282——	DIODE	BA282	
D103	DUZ33B——	DIODE ZENER	UZ-33B	
D301	DUZ12BM—-	DIODE ZENER	UZ-12BM (UNIZON)	
D302	D1N4937G—	DIODE	1N4937G (TAPPING)	
D303	D1N4937G—	DIODE	1N4937G (TAPPING)	
D304	D1N4937G—	DIODE	1N4937G (TAPPING)	
D307	DUZ33B——	DIODE ZENER	UZ-33B	
D308	DUZ33B——	DIODE ZENER	UZ-33B	
D401	D1N4937G—	DIODE	1N4937G (TAPPING)	
D405	D1N4937G—	DIODE	1N4937G (TAPPING)	
D414	D1N4004S—	DIODE	1N4004S	
D425	D1N4148—-	DIODE	1N4148 (TAPPING)	
D426	D1N4148—-	DIODE	1N4148 (TAPPING)	
D501	D1N4148—-	DIODE	1N4148 (TAPPING)	
D502	DUZ3R9B—-	DIODE ZENER	UZ-3.9B	
D503	DUZ3R9B—-	DIODE ZENER	UZ-3.9B	
D523	DUZ3R9B—-	DIODE ZENER	UZ-3.9B	
D601	D1N4148—-	DIODE	1N4148 (TAPPING)	
D602	D1N4148—-	DIODE	1N4148 (TAPPING)	
D710	DUZ5R6BM—	DIODE ZENER	UZ-5.6BM	
D801	DLT2A05G—	DIODE	LT2A05G (TP)	
D802	DLT2A05G—	DIODE	LT2A05G (TP)	
D803	DLT2A05G—	DIODE	LT2A05G (TP)	
D804	DLT2A05G—	DIODE	LT2A05G (TP)	
D805	D1N4937G—	DIODE	1N4937G (TAPPING)	
D806	D1N4937G—	DIODE	1N4937G (TAPPING)	
D807	D1N4148—-	DIODE	1N4148 (TAPPING)	
D808	DUZ6R2BM—	DIODE ZENER	UZ-6.2BM	
D809	DRGP15J—-	DIODE	RGP15J DO-204AC 600V 1.5A	
D813	DRGP15J—-	DIODE	RGP15J DO-204AC 600V 1.5A	
D816	D1N4148—-	DIODE	1N4148 (TAPPING)	
D817	DUZ5R6BM—	DIODE ZENER	UZ-5.6BM	
D840	DUZ8R2BM—	DIODE ZENER	UZ-8.2BM	
D841	D1N4148—-	DIODE	1N4148 (TAPPING)	
D904	D1N4937G—	DIODE	1N4937G (TAPPING)	
D905	D1N4937G—	DIODE	1N4937G (TAPPING)	
D906	D1N4937G—	DIODE	1N4937G (TAPPING)	
DA01	D1N4148—-	DIODE	1N4148 (TAPPING)	
DA02	DUZ5R6BM—	DIODE ZENER	UZ-5.6BM	
DA04	DUZ5R6BM—	DIODE ZENER	UZ-5.6BM	
DA05	DUZ5R6BM—	DIODE ZENER	UZ-5.6BM	
DA06	DUZ5R6BM—	DIODE ZENER	UZ-5.6BM	
DA08	DUZ5R6BM—	DIODE ZENER	UZ-5.6BM	
DA09	DUZ5R6BM—	DIODE ZENER	UZ-5.6BM	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
DA10	DUZ5R6BM—	DIODE ZENER	UZ-5.6BM	
DA11	DUZ5R6BM—	DIODE ZENER	UZ-5.6BM	
DA23	DUZ5R6BM—	DIODE ZENER	UZ-5.6BM	
DA24	DUZ5R6BM—	DIODE ZENER	UZ-5.6BM	
DA30	DUZ5R6BM—	DIODE ZENER	UZ-5.6BM	
DA31	D1N4148---	DIODE	1N4148 (TAPPING)	
DA32	DUZ5R6BM—	DIODE ZENER	UZ-5.6BM	
DA33	D1N4148---	DIODE	1N4148 (TAPPING)	
DA34	DUZ5R6BM—	DIODE ZENER	UZ-5.6BM	
DD01	DUZ5R6BM—	DIODE ZENER	UZ-5.6BM	
DD03	D1N4148---	DIODE	1N4148 (TAPPING)	
DD04	D1N4148---	DIODE	1N4148 (TAPPING)	
J001	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J002	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J003	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J004	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J005	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J006	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J007	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J008	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J009	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J010	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J011	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J012	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J013	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J014	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J016	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J017	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J018	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J019	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J022	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J025	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J026	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J027	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J028	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J029	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J031	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J032	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J033	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J034	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J035	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J036	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J037	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J038	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J039	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J040	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J041	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J042	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
J043	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J044	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J045	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J046	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J047	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J048	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J049	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J050	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J051	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J052	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J053	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J054	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J055	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J056	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J057	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J058	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J059	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J060	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J061	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J062	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
J063	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J066	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J067	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J068	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J069	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J070	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J071	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J072	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J073	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J074	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J075	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
J076	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J077	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J078	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J079	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J080	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J081	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J082	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J083	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J084	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J085	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J086	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J087	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J088	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J089	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J090	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J091	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J093	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J094	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J095	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J096	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J097	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J098	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J099	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J100	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J101	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J102	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J103	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J104	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J105	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J106	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
J107	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J108	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J109	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J110	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J111	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J112	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J113	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J114	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J115	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J116	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J117	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J118	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J119	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J120	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J121	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J122	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J123	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J124	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J125	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J126	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J127	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J128	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J129	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J130	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J131	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J132	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J135	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
J136	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J137	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
J138	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J139	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J140	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J141	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J142	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J143	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J145	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J147	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J148	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J149	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J150	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J151	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J153	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J154	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J155	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J156	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J157	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J158	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J159	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J162	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J163	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J300	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J500	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
L101	5CPZ100K02	COIL PEAKING	10UH K (AXIAL 3.5MM)	
L301	5CPZ109M04	COIL PEAKING	1UH 10.5MM M (LAL04TB)	
L350	5CPZ109M04	COIL PEAKING	1UH 10.5MM M (LAL04TB)	
L351	5CPZ109M04	COIL PEAKING	1UH 10.5MM M (LAL04TB)	
L505	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L506	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L507	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L510	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L511	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L512	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L513	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L514	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L515	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L516	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L517	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L518	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L519	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L520	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L523	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L650	5MC0000100	COIL BEAD	HC-3550	
L801	5MC0000100	COIL BEAD	HC-3550	
LD01	5CPZ100K02	COIL PEAKING	10UH K (AXIAL 3.5MM)	
LD81	5CPZ100K02	COIL PEAKING	10UH K (AXIAL 3.5MM)	
R105	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R106	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R107	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R109	RD-AZ391J-	R CARBON FILM	1/6 390 OHM J	
R128	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
R155	RD-AZ222J-	R CARBON FILM	1/6 2.2K OHM J	
R156	RD-AZ222J-	R CARBON FILM	1/6 2.2K OHM J	
R202	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
R301	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
R302	RD-4Z162F-	R CARBON FILM	1/4 1.6K OHM F	
R303	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
R304	RD-4Z162F-	R CARBON FILM	1/4 1.6K OHM F	
R305	RD-4Z334J-	R CARBON FILM	1/4 330K OHM J	
R306	RD-4Z473J-	R CARBON FILM	1/4 47K OHM J	
R309	RD-4Z272J-	R CARBON FILM	1/4 2.7K OHM J	
R401	RD-4Z272J-	R CARBON FILM	1/4 2.7K OHM J	
R402	RD-4Z220J-	R CARBON FILM	1/4 22 OHM J	
R403	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J	
R405	RD-4Z182J-	R CARBON FILM	1/4 1.8K OHM J	
R407	RD-2Z271J-	R CARBON FILM	1/2 270 OHM J	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
R410	RD-2Z474J-	R CARBON FILM	1/2 470K OHM J	
R419	RD-AZ273J-	R CARBON FILM	1/6 27K OHM J	
R422	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J	
R423	RD-4Z682J-	R CARBON FILM	1/4 6.8K OHM J	
R424	RD-4Z303J-	R CARBON FILM	1/4 30K OHM J	
R503	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R504	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	
R505	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R509	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R515	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R517	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R518	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R519	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R527	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R528	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R539	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
R540	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
R542	RD-AZ683J-	R CARBON FILM	1/6 68K OHM J	
R544	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J	
R545	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	
R546	RD-AZ181J-	R CARBON FILM	1/6 180 OHM J	
R554	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R555	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R556	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R557	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R561	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R562	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R563	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R564	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R565	RD-AZ154J-	R CARBON FILM	1/6 150K OHM J	
R566	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R567	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R576	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R577	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R578	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R579	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R580	RD-AZ123J-	R CARBON FILM	1/6 12K OHM J	
R581	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R585	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R586	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R587	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R588	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R590	RD-AZ334J-	R CARBON FILM	1/6 330K OHM J	
R599	RD-AZ224J-	R CARBON FILM	1/6 220K OHM J	
R612	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	
R618	RD-2Z151J-	R CARBON FILM	1/2 150 OHM J	
R619	RD-2Z151J-	R CARBON FILM	1/2 150 OHM J	
R650	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	
R660	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	
R713	RD-AZ681J-	R CARBON FILM	1/6 680 OHM J	
R721	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
R722	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J	
R723	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J	
R724	RD-AZ181J-	R CARBON FILM	1/6 180 OHM J	
R731	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
R732	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J	
R733	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J	
R734	RD-AZ181J-	R CARBON FILM	1/6 180 OHM J	
R750	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R756	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R757	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J	
R758	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R759	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R802	RD-2Z824J-	R CARBON FILM	1/2 820K OHM J	
R804	RD-2Z474J-	R CARBON FILM	1/2 470K OHM J	
R805	RD-2Z274J-	R CARBON FILM	1/2 270K OHM J	
R806	RD-4Z220J-	R CARBON FILM	1/4 22 OHM J	
R808	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
R809	RD-4Z152J-	R CARBON FILM	1/4 1.5K OHM J	
R810	RD-4Z221J-	R CARBON FILM	1/4 220 OHM J	
R811	RC-2Z565KP	R CARBON COMP	1/2 5.6M OHM K	
R812	RD-4Z473J-	R CARBON FILM	1/4 47K OHM J	
R813	RD-4Z473J-	R CARBON FILM	1/4 47K OHM J	
R814	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R815	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R816	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
R817	RD-4Z681J-	R CARBON FILM	1/4 680 OHM J	
R818	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R819	RD-4Z103J-	R CARBON FILM	1/4 10K OHM J	
R822	RD-4Z222J-	R CARBON FILM	1/4 2.2K OHM J	
R824	RD-4Z223J-	R CARBON FILM	1/4 22K OHM J	
R827	RD-4Z363J-	R CARBON FILM	1/4 36K OHM J	
R836	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R837	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R838	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	
R839	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R840	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
R841	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R842	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R843	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R844	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R846	RD-2Z479J-	R CARBON FILM	1/2 4.7 OHM J	
R849	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
R910	RD-2Z102J-	R CARBON FILM	1/2 1K OHM J	
R911	RD-2Z102J-	R CARBON FILM	1/2 1K OHM J	
R912	RD-2Z102J-	R CARBON FILM	1/2 1K OHM J	
R913	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R914	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R915	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R921	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J	
R922	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J	
R923	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J	
R930	RD-4Z100J-	R CARBON FILM	1/4 10 OHM J	
RA05	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
RA07	RD-AZ332J-	R CARBON FILM	1/6 3.3K OHM J	
RA10	RD-AZ470J-	R CARBON FILM	1/6 47 OHM J	
RA12	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RA14	RD-AZ220J-	R CARBON FILM	1/6 22 OHM J	
RA29	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
RD40	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	

DDT-14H9ZTF

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
ZZ100	48B5552C03	TRANSMITTER REMOCON	R-52C03 (AAA)	
ZZ110	PTACPWE102	ACCESSORY AS	DDT-21H9ZTF	
00010	4850Q00910	BATTERY	R03/NN	
ZZ120	PTBCSHE102	COVER BACK AS	DDT-21H9ZTF	
M211	4852161301	COVER BACK	HIPS GY 21H9	
M541	4855415800	SPEC PLATE	150ART P/E FILM (C/TV)	
M781	4857817630	CLOTH BLACK	FELT 400X20X0.7	
ZZ130	PTPKCPE102	PACKING AS	DDT-21H9ZTF	
10	6520010100	STAPLE PIN	AUTO W65	
M801	4858061200	BOX CARTON	DW-3 21H9	
M811	4858199500	PAD	EPS 21H9	
M821	4858219101	BAG P.E	P.E FOAM T0.5X1300X1150	
ZZ131	48519A7110	CRT GROUND NET	2101F-1015-1P	
ZZ132	58G0000154	COIL DEGAUSSING	DC-21F1	
ZZ140	PTCACAE102	CABINET AS	DDT-21H9ZTF	
M111	4851115200	PANEL CONTROL ASSY	23285+49520+55463+48618	
M201A	4856017303	SCREW CRT FIX	5X30 L80 BK	
M201B	4856017310	SCREW CRT FIX	5X30 L190 BK	
M201C	4856215401	WASHER RUBBER	CR T1.0	
M211A	7172401612	SCREW TAPPTITE	TT2 TRS 4X16 MFZN BK	
M211B	7178301212	SCREW TAPPTITE	TT2 WAS 3X12 MFZN BK	
M281	4852823903	DOOR CD	HIPS GY	
M281A	4855800018	LABEL(BADGE DVD)	NI+CR	
M352	4853535500	HOLDER AC CORD	NYLON 66	
M381	4853818500	FRAME POWER	FR HIPS BK 21H9	
M381A	7178301212	SCREW TAPPTITE	TT2 WAS 3X12 MFZN BK	
M561	48556175SD	MARK BRAND	SILVER DIA-CUTTING	
M671	4856716000	SPRING	SWPA PIE0.5	
SP601	7172401212	SCREW TAPPTITE	TT2 TRS 4X12 MFZNBK	
SP602	7172401212	SCREW TAPPTITE	TT2 TRS 4X12 MFZNBK	
V901	PTRTPWD572	CRT AS	DDT-21H9ZZF	
PA401	4850704N07	CONNECTOR	SE100J+172792+USW=500	
V901	4859637360	CRT	A51ERF135X80	
ZZ200	PTFMSJE102	MASK FRONT AS	DDT-21H9ZTF	
M201	4852080501	MASK FRONT	HIPS GY 21H9	
ZZ202	PTSPPWE102	SPEAKER AS	DDT-21H9ZTF	
PA601	4850704S31	CONNECTOR	YH025-04+YRT205+ULW800400	
SP01	4858313510	SPEAKER	SP-50110F05	
SP02	4858313510	SPEAKER	SP-50110F05	
ZZ290	PTMPMSE102	PCB MAIN MANUAL AS	DDT-21H9ZTF	
10	2193102005	SOLDER BAR	SN:PB=63:37 S63S-1320	
30	2291050616	FLUX SOLDER	JS-64T3	
40	2291050301	FLUX SOLVENT	IM-1000	
C402	CMYH3C602J	C MYLAR	1.6KV BUP 6000PF J	
C408	CMYE2D304J	C MYLAR	200V PU 0.3MF J	
C801	CL1UC3474M	C LINE ACROSS	0.47MF 1J(UCVSNDF/SV)+Q/O	
C802	CH1BFE472M	C CERA AC	AC400V 4700PF M U/C/V	
C805	CEYD2G181D	C ELECTRO	400V FHS 180MF (25X35)	
C810	CCYR3D102K	C CERA	2KV R 1000PF K 125 DE1207	
C814	CEYF2D101V	C ELECTRO	200V RSS 100MF (16X31.5)	
C830	CEYF2D101V	C ELECTRO	200V RSS 100MF (16X31.5)	
D406	DDG3———	DIODE	DG3	
D750	DLH3PRG—-	LED BLOCK	LH-3P-RG	
D751	DLH3PRG—-	LED BLOCK	LH-3P-RG	
D810	DRGP30J—-	DIODE	RGP30J DO-201AD 600V 3A	
D814	DD3S6M2004	DIODE	D3S6MP2004	
D815	DRGP30J—-	DIODE	RGP30J DO-201AD 600V 3A	
D820	DD3S6M2004	DIODE	D3S6MP2004	
I301	PTF2SW7910	HEAT SINK ASS`Y	1TDA8357J- + 7174300811	
00001	1TDA8357J-	IC VERTICAL	TDA8357J	
0000A	4857027910	HEAT SINK	AL EX	
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
I502	124LC16B1B	IC MEMORY	24LC16B1B	
I601	PTE2SW4421	HEAT SINK ASS`Y	1TDA8944J- + 7174300811	
00001	1TDA8944J-	IC SOUND	TDA8944J	
0000A	4857024421	HEAT SINK	AL EX	
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
I801	PTP2SW4600	HEAT SINK ASS`Y	1STRW6754- + 7174300811	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
00001	1STRW6754-	IC POWER	STR-W6754	
0000A	4857024600	HEAT SINK	AL EX B/K	
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
I802	1LTV817C—	IC PHOTO COUPLER	LTV-817C	
I803	1K1A78R05A	IC REGULATOR	K1A78R05AP1 5.0V 1.0A TO-220	
I804	PT22SW7800	HEAT SINK ASS`Y	1K1A78R05A + 7174300811	
00001	1K1A78R05A	IC REGULATOR	K1A78R05AP1 5.0V 1.0A TO-220	
0000A	4857027800	HEAT SINK	AL EX	
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
I805	PT32SW7800	HEAT SINK ASS`Y	1K1A78R33A + 7174300811	
00001	1K1A78R33A	IC REGULATOR	K1A78R33AP1 3.3V 1.0A TO-220	
0000A	4857027800	HEAT SINK	AL EX	
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
I806	1K78R12—-	IC REGULATOR	KIA78R12API	
I807	1K78R08—-	IC REGULATOR	KIA78R08API	
I809	1LD1117V50	IC REGULATOR	LD1117AV50 5.0V 2% TO-220	
I810	1DP142——	IC ERROR AMP	DP142	
I811	PTT2SW6902	HEAT SINK ASS`Y	1LD1117V33 + 7174300811	
00001	1LD1117V33	IC REGULATOR	LD1117AV33 3.3V 2% TO-220	
0000A	4857026902	HEAT SINK	AL EX BK	
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
I901	PTM1SW8902	HEAT SINK ASS`Y	1TDA6107AJ + 7174300811	
00001	1TDA6107AJ	IC VIDEO	TDA6107AJF	
0000A	4857018902	HEAT SINK	A1050P-H24	
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
ID02	1KA4558—-	IC AMP	KA4558	
IQ01	1KRT30——	IC PREAMP	KRT30	
JPA01	4859200401	SOCKET RGB	YRS21-R1	
JPA04	4859111450	JACK PIN BOARD	YSC03P-5120-L	
L401	58C0000118	COIL CHOKE	CH-191A	
L403	58H0000076	COIL H-LINEARITY	TRL-121B	
LF801	5PLF24A3—	FILTER LINE	LF-24A3	
M193	4850M09010	MODULE DVD LOADER	DQL-2308-7D1TEN	
M193A	7178301212	SCREW TAPPTITE	TT2 WAS 3X12 MFZN BK	
M221	4852221700	CABINET BOTTOM	FR HIPS BK 21H9	
M221A	7178300811	SCREW TAPPTITE	TT2 WAS 3X8 MFZN	
M382	4853818901	FRAME DECK	HIPS BK	
M382A	7178301212	SCREW TAPPTITE	TT2 WAS 3X12 MFZN BK	
M391	4853954000	BRKT EARTH	C5212P-1/2M T0.2	
M392	4853954000	BRKT EARTH	C5212P-1/2M T0.2	
M393	4853954000	BRKT EARTH	C5212P-1/2M T0.2	
M721	4857250100	SHIELD CASE	ET T0.5	
M722	4857251500	SHIELD BOTTOM	ET T0.4	
M722A	7178301011	SCREW TAPPTITE	TT2 WAS 3X10 MFZN	
P502	4859235520	CONN WAFER	YW025-12	
P802	4859242220	CONN WAFER	YFW800-02	
PA101	4850701V01	CONNECTOR	RINGTERM4.3+USW=200	
PA801	WP-1BK1515	WIRE LEAD 1007	AWG22 1/0.65 BK 5-150-5	
PA901	4850704S04	CONNECTOR	YH025-04+YST025+ULW=400	
PA902	4850705S04	CONNECTOR	YH025-05+YBNH250+ULW=400	
PAD01	4859002960	CABLE FFC	1.0-K-19P-100MM 10X5-10X5 AL	
PAD02	4859002860	CABLE FFC	1.0-K-15P-100MM 10X5-10X5 AL	
PD01	4859297220	CONN WAFER	GF102-19S-TS 19P ST	
PD02	4859297120	CONN WAFER	GF102-15S-TS 15P ST	
PWC1	4859906210	CORD POWER AS	LP-21R+H03VVH2+LOCK=2200	
Q401	PTN2SW4500	HEAT SINK ASS`Y	T2SD2578— + 7174300811	
00001	T2SD2578—	TR HORI	2SD2578	
0000A	4857024500	HEAT SINK	AL EX B/K	
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
R801	DDC7R0M290	POSISTOR	ECPCD7R0M290	
R803	RX10T339J-	R CEMENT	10W 3.3 OHM J TRIPOD	
SCT1	4859304130	SOCKET CRT	ISHG93S	
SW801	5S40101146	SW POWER PUSH	SS-160-7-B	
T401	50D10A2—-	TRANS DRIVE	TD-10A2	
T402	50H0000279	FBT	1352.5094A	
T801	50M4242C9-	TRANS SMPS	TSM-4242C9	
U100	4859722630	TUNER VARACTOR	TECC2949PG35W	
X501	5XJ24R576G	CRYSTAL QUARTZ	ATS-49/U 24.576000MHZ 10PPM	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
Y801	5SC0101339	SW RELAY	SDT-S-105LMR	
Z101	5PK3953M—	FILTER SAW	K3953M	
Z102	5PK9650M—	FILTER SAW	K9650M	
ZZ200	PTMPJ2E102	PCB MAIN CHIP MOUNT BAS	DDT-21H9ZTF	
CC103	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
CC104	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
CC107	HCQK470JBA	C CHIP CERA	50V CH 47PF J 1608	
CC108	HCQK470JBA	C CHIP CERA	50V CH 47PF J 1608	
CC120	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
CC123	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
CC304	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
CC404	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
CC503	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
CC504	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
CC511	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
CC514	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
CC518	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
CC521	HCBK222KBA	C CHIP CERA	50V X7R 2200PF K 1608	
CC528	HCBK223KBA	C CHIP CERA	50V X7R 0.022MF K 1608	
CC531	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
CC532	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
CC533	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
CC541	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
CC556	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
CC557	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
CC568	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
CC570	HCBK561KBA	C CHIP CERA	50V X7R 560PF K 1608	
CC571	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
CC572	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
CC573	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
CC575	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
CC576	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
CC578	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
CC579	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
CC590	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
CC591	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
CC665	HCBK332KBA	C CHIP CERA	50V X7R 3300PF K 1608	
CC666	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
CC667	HCBK332KBA	C CHIP CERA	50V X7R 3300PF K 1608	
CC819	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
CC821	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
CC833	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
CC835	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
CC837	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
CCA01	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
CCA02	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
CCA03	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
CCA10	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
CCD02	HCBK391KBA	C CHIP CERA	50V X7R 390PF K 1608	
CCD04	HCQK331JBA	C CHIP CERA	50V CH 330PF J 1608	
CCD09	HCBK391KBA	C CHIP CERA	50V X7R 390PF K 1608	
CCD11	HCQK331JBA	C CHIP CERA	50V CH 330PF J 1608	
CCD34	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
CCD83	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
CCD84	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
IC501	1TDA21HD01	IC MICOM FLASH	TDA12021H1(N1D01)	
ICD01	1PCM1754DD	IC CHIP DAC	PCM1754DBQ 16PIN SSOP REEL	
QC120	T2SC2412KB	TR CHIP	2SC2412K-T146-BR	
QC501	T2SC2412KB	TR CHIP	2SC2412K-T146-BR	
QC502	T2SA1037KB	TR CHIP	2SA1037AKT146-R	
QC508	T2SC2412KB	TR CHIP	2SC2412K-T146-BR	
QC601	T2SC2412KB	TR CHIP	2SC2412K-T146-BR	
QC602	T2SA1037KB	TR CHIP	2SA1037AKT146-R	
QC801	T2SC2412KB	TR CHIP	2SC2412K-T146-BR	
QC802	T2SC2412KB	TR CHIP	2SC2412K-T146-BR	
QC805	T2SC2412KB	TR CHIP	2SC2412K-T146-BR	
QCD40	T2SC2412KB	TR CHIP	2SC2412K-T146-BR	
QCD41	T2SC2412KB	TR CHIP	2SC2412K-T146-BR	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
QCD42	T2SC2412KB	TR CHIP	2SC2412K-T146-BR	
RC103	HRFT123JBA	R CHIP	1/10 12K OHM J 1608	
RC104	HRFT683JBA	R CHIP	1/10 68K OHM J 1608	
RC114	HRFT473JBA	R CHIP	1/10 47K OHM J 1608	
RC115	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
RC120	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
RC131	HRFT472JBA	R CHIP	1/10 4.7K OHM J 1608	
RC154	HRFT000JBA	R CHIP	1/10 0 OHM J 1608	
RC308	HRFT562JBA	R CHIP	1/10 5.6K OHM J 1608	
RC404	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
RC500	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
RC501	HRFT332JBA	R CHIP	1/10 3.3K OHM J 1608	
RC502	HRFT332JBA	R CHIP	1/10 3.3K OHM J 1608	
RC507	HRFT332JBA	R CHIP	1/10 3.3K OHM J 1608	
RC508	HRFT332JBA	R CHIP	1/10 3.3K OHM J 1608	
RC509	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
RC510	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
RC514	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
RC516	HRFT153JBA	R CHIP	1/10 15K OHM J 1608	
RC520	HRFT122JBA	R CHIP	1/10 1.2K OHM J 1608	
RC537	HRFT183JBA	R CHIP	1/10 18K OHM J 1608	
RC541	HRFT393JBA	R CHIP	1/10 39K OHM J 1608	
RC543	HRFT222JBA	R CHIP	1/10 2.2K OHM J 1608	
RC547	HRFT563JBA	R CHIP	1/10 56K OHM J 1608	
RC548	HRFT152JBA	R CHIP	1/10 1.5K OHM J 1608	
RC551	HRFT823JBA	R CHIP	1/10 82K OHM J 1608	
RC552	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
RC553	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
RC560	HRFT222JBA	R CHIP	1/10 2.2K OHM J 1608	
RC561	HRFT122JBA	R CHIP	1/10 1.2K OHM J 1608	
RC571	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
RC572	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
RC573	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
RC574	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
RC575	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
RC582	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
RC583	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
RC584	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
RC589	HRFT153JBA	R CHIP	1/10 15K OHM J 1608	
RC598	HRFT182JBA	R CHIP	1/10 1.8K OHM J 1608	
RC602	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
RC611	HRFT223JBA	R CHIP	1/10 22K OHM J 1608	
RC661	HRFT562JBA	R CHIP	1/10 5.6K OHM J 1608	
RC665	HRFT562JBA	R CHIP	1/10 5.6K OHM J 1608	
RC754	HRFT221JBA	R CHIP	1/10 220 OHM J 1608	
RC760	HRFT181JBA	R CHIP	1/10 180 OHM J 1608	
RC767	HRFT331JBA	R CHIP	1/10 330 OHM J 1608	
RC830	HRFT472JBA	R CHIP	1/10 4.7K OHM J 1608	
RC831	HRFT472JBA	R CHIP	1/10 4.7K OHM J 1608	
RC832	HRFT472JBA	R CHIP	1/10 4.7K OHM J 1608	
RC834	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
RC835	HRFT473JBA	R CHIP	1/10 47K OHM J 1608	
RC843	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
RCA02	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
RCA03	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
RCA04	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
RCA06	HRFT750JBA	R CHIP	1/10 75 OHM J 1608	
RCA08	HRFT750JBA	R CHIP	1/10 75 OHM J 1608	
RCA09	HRFT750JBA	R CHIP	1/10 75 OHM J 1608	
RCA13	HRFT222JBA	R CHIP	1/10 2.2K OHM J 1608	
RCA16	HRFT750JBA	R CHIP	1/10 75 OHM J 1608	
RCA19	HRFT750JBA	R CHIP	1/10 75 OHM J 1608	
RCA30	HRFT473JBA	R CHIP	1/10 47K OHM J 1608	
RCA31	HRFT473JBA	R CHIP	1/10 47K OHM J 1608	
RCD01	HRFT510JBA	R CHIP	1/10 51 OHM J 1608	
RCD02	HRFT510JBA	R CHIP	1/10 51 OHM J 1608	
RCD03	HRFT510JBA	R CHIP	1/10 51 OHM J 1608	
RCD04	HRFT201JBA	R CHIP	1/10 200 OHM J 1608	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
RCD05	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
RCD06	HRFT113JBA	R CHIP	1/10 11K OHM J 1608	
RCD07	HRFT561JBA	R CHIP	1/10 560 OHM J 1608	
RCD08	HRFT132JBA	R CHIP	1/10 1.3K OHM J 1608	
RCD14	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
RCD15	HRFT113JBA	R CHIP	1/10 11K OHM J 1608	
RCD16	HRFT561JBA	R CHIP	1/10 560 OHM J 1608	
RCD17	HRFT132JBA	R CHIP	1/10 1.3K OHM J 1608	
RCD23	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
RCD24	HRFT333JBA	R CHIP	1/10 33K OHM J 1608	
RCD25	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
RCD26	HRFT333JBA	R CHIP	1/10 33K OHM J 1608	
RCD30	HRFT241JBA	R CHIP	1/10 240 OHM J 1608	
RCD41	HRFT471JBA	R CHIP	1/10 470 OHM J 1608	
RCD42	HRFT471JBA	R CHIP	1/10 470 OHM J 1608	
RCD80	HRFT750JBA	R CHIP	1/10 75 OHM J 1608	
RCD81	HRFT750JBA	R CHIP	1/10 75 OHM J 1608	
RCD82	HRFT750JBA	R CHIP	1/10 75 OHM J 1608	
RCD83	HRFT750JBA	R CHIP	1/10 75 OHM J 1608	
ZZ200	PTMPJ0E102	PCB MAIN (RHU) AS	DDT-21H9ZTF	
C307	CEXF2A470V	C ELECTRO	100V RSS 47MF (10X16) TP	
C415	CEXF2E100V	C ELECTRO	250V RSS 10MF (10X20) TP	
C604	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
C803	CCXB3A472K	C CERA	1KV B 4700PF K (TAPPING)	
C804	CCXB3A472K	C CERA	1KV B 4700PF K (TAPPING)	
C815	CEXF1E102V	C ELECTRO	25V RSS 1000MF (13X20) TP	
C817	CEXF1E102V	C ELECTRO	25V RSS 1000MF (13X20) TP	
C818	CEXF1C222V	C ELECTRO	16V RSS 2200MF (13X25) TP	
C820	CEXF1C222V	C ELECTRO	16V RSS 2200MF (13X25) TP	
C834	CEXF1C471V	C ELECTRO	16V RSS 470MF (8X12)TP	
C836	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
C841	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
C965	CCXB3D102K	C CERA	2KV B 1000PF K (TAPPING)	
C997	CEXF2E100V	C ELECTRO	250V RSS 10MF (10X20) TP	
C998	CEXF2E100V	C ELECTRO	250V RSS 10MF (10X20) TP	
ZZ200	PTMPJBE102	PCB MAIN M-10 AS	DDT-21H9ZTF	
E1	4856310300	EYE LET	BSR T0.2 (R1.6)	
E10	4856310600	EYE LET	BSR T0.2 (R2.3)	
E11	4856310300	EYE LET	BSR T0.2 (R1.6)	
E12	4856310300	EYE LET	BSR T0.2 (R1.6)	
E13	4856310300	EYE LET	BSR T0.2 (R1.6)	
E14	4856310300	EYE LET	BSR T0.2 (R1.6)	
E15	4856310600	EYE LET	BSR T0.2 (R2.3)	
E16	4856310300	EYE LET	BSR T0.2 (R1.6)	
E17	4856310300	EYE LET	BSR T0.2 (R1.6)	
E18	4856310300	EYE LET	BSR T0.2 (R1.6)	
E2	4856310300	EYE LET	BSR T0.2 (R1.6)	
E20	4856310600	EYE LET	BSR T0.2 (R2.3)	
E21	4856310600	EYE LET	BSR T0.2 (R2.3)	
E22	4856310600	EYE LET	BSR T0.2 (R2.3)	
E23	4856310300	EYE LET	BSR T0.2 (R1.6)	
E24	4856310300	EYE LET	BSR T0.2 (R1.6)	
E25	4856310300	EYE LET	BSR T0.2 (R1.6)	
E26	4856310600	EYE LET	BSR T0.2 (R2.3)	
E27	4856310600	EYE LET	BSR T0.2 (R2.3)	
E28	4856310600	EYE LET	BSR T0.2 (R2.3)	
E29	4856310300	EYE LET	BSR T0.2 (R1.6)	
E3	4856310600	EYE LET	BSR T0.2 (R2.3)	
E30	4856310300	EYE LET	BSR T0.2 (R1.6)	
E31	4856310300	EYE LET	BSR T0.2 (R1.6)	
E32	4856310300	EYE LET	BSR T0.2 (R1.6)	
E33	4856310600	EYE LET	BSR T0.2 (R2.3)	
E34	4856310600	EYE LET	BSR T0.2 (R2.3)	
E35	4856310600	EYE LET	BSR T0.2 (R2.3)	
E36	4856310600	EYE LET	BSR T0.2 (R2.3)	
E37	4856310300	EYE LET	BSR T0.2 (R1.6)	
E38	4856310300	EYE LET	BSR T0.2 (R1.6)	
E39	4856310300	EYE LET	BSR T0.2 (R1.6)	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
E4	4856310300	EYE LET	BSR T0.2 (R1.6)	
E40	4856310300	EYE LET	BSR T0.2 (R1.6)	
E41	4856310600	EYE LET	BSR T0.2 (R2.3)	
E42	4856310600	EYE LET	BSR T0.2 (R2.3)	
E43	4856310600	EYE LET	BSR T0.2 (R2.3)	
E44	4856310600	EYE LET	BSR T0.2 (R2.3)	
E5	4856310600	EYE LET	BSR T0.2 (R2.3)	
E6	4856310600	EYE LET	BSR T0.2 (R2.3)	
E8	4856310600	EYE LET	BSR T0.2 (R2.3)	
P601	485923172S	CONN WAFER	YW025-04 (STICK)	
P701	485923172S	CONN WAFER	YW025-04 (STICK)	
P801A	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
P801B	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
P801C	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
P801D	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
P801E	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
P801F	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
P901	485923172S	CONN WAFER	YW025-04 (STICK)	
P902	485923182S	CONN WAFER	YW025-05 (STICK)	
R807	RS02Z278JS	R M-OXIDE FILM	2W 0.27 OHM J SMALL	
R825	RS02Z688JS	R M-OXIDE FILM	2W 0.68 OHM J SMALL	
R920	RS02Z339JS	R M-OXIDE FILM	2W 3.3 OHM J SMALL	
ZZ200	PTMPJRE102	PCB MAIN RADIAL AS	DDT-21H9ZTF	
C102	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP	
C106	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP	
C109	CMXL1J474J	C MYLAR	63V MEU 0.47MF J	
C121	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C125	CEXF1E100V	C ELECTRO	25V RSS 10MF (5X11) TP	
C301	CMXM2A683J	C MYLAR	100V 0.068MF J (TP)	
C302	CMXM2A683J	C MYLAR	100V 0.068MF J (TP)	
C303	CEXF1E221V	C ELECTRO	25V RSS 220MF (8X11.5) TP	
C305	CEXF2C339V	C ELECTRO	160V RSS 3.3MF (8X16) TP	
C306	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
C401	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C403	CCXB2H222K	C CERA	500V B 2200PF K (TAPPING)	
C412	CEXF2C339V	C ELECTRO	160V RSS 3.3MF (8X16) TP	
C414	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
C421	CCXF1H473Z	C CERA	50V F 0.047MF Z (TAPPING)	
C423	CXCH2H470J	C CERA	500V CH 47PF J (TAPPING)	
C502	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP	
C505	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C507	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C508	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
C509	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C510	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
C513	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C515	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C516	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C517	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
C519	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C520	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C524	CMXM2A682J	C MYLAR	100V 6800PF J (TP)	
C525	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
C526	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C527	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C529	CMXL1J154J	C MYLAR	63V MEU 0.15MF J	
C534	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C535	CMXL1J474J	C MYLAR	63V MEU 0.47MF J	
C536	CMXL1J474J	C MYLAR	63V MEU 0.47MF J	
C537	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C538	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C539	CMXM2A332J	C MYLAR	100V 3300PF J (TP)	
C540	CMXM2A473J	C MYLAR	100V 0.047MF J (TP)	
C542	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C543	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C545	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C547	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C548	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
C549	CMXL1J474J	C MYLAR	63V MEU 0.47MF J	
C552	CMXL1J474J	C MYLAR	63V MEU 0.47MF J	
C553	CMXL1J474J	C MYLAR	63V MEU 0.47MF J	
C554	CMXL1J474J	C MYLAR	63V MEU 0.47MF J	
C560	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C561	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C563	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C567	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C569	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP	
C574	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C576	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C577	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP	
C581	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C602	CEXF1C221V	C ELECTRO	16V RSS 220MF (8X11.5) TP	
C660	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C661	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C662	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C668	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C669	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C770	CEXF1C101A	C ELECTRO	16V RSM 100MF (6.3X7) TP	
C806	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C808	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
C811	CMXM2A223J	C MYLAR	100V 0.022MF J TP	
C813	CCXB3A471K	C CERA	1KV B 470PF K (T)	
C824	CEXF1C101A	C ELECTRO	16V RSM 100MF (6.3X7) TP	
C825	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
C829	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11) TP	
C831	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
C832	CEXF1H101V	C ELECTRO	50V RSS 100MF (8X11.5) TP	
C838	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
C840	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C901	CCXF1H102Z	C CERA	50V F 1000PF Z (TAPPING)	
C968	CMXL2E104K	C MYLAR	250V MEU 0.1MF K	
CD01	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11) TP	
CD03	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP	
CD05	CEXF1C100V	C ELECTRO	RSS 16V 10MF 4*7	
CD08	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11) TP	
CD12	CEXF1C100V	C ELECTRO	RSS 16V 10MF 4*7	
CD15	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP	
CD82	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP	
CD84	CEXF1C100V	C ELECTRO	RSS 16V 10MF 4*7	
F801	5FWPS4022L	FUSE	WIDE TL 250V 4A CASE	
Q402	TKTC3209Y-	TR	KTC3209Y	
Q513	TKTA1266Y-	TR	KTA1266Y (TP)	
Q514	TH2N7000—	FET	H2N7000	
Q515	TH2N7000—	FET	H2N7000	
Q750	TKTC3198Y-	TR	KTC3198Y	
Q752	TKTA1266Y-	TR	KTA1266Y (TP)	
Q753	TKTC3198Y-	TR	KTC3198Y	
Q803	TKTC3203Y-	TR	KTC3203-Y	
Q804	TKTA1266Y-	TR	KTA1266Y (TP)	
Q813	TKTA1266Y-	TR	KTA1266Y (TP)	
Q814	TKTC3198Y-	TR	KTC3198Y	
Q815	TKTA1266Y-	TR	KTA1266Y (TP)	
Q816	TKTC3198Y-	TR	KTC3198Y	
Q825	TKSA1013Y-	TR	KSA1013Y (TP)	
QD01	TKTC3205Y-	TR	KTC3205Y (TP)	
R108	RN01B332JS	R METAL FILM	1W 3.3K OHM J SMALL	
R307	RN02B189JS	R METAL FILM	2W 1.8 OHM J SMALL	
R406	RN02B561JS	R METAL FILM	2W 560 OHM J SMALL	
R408	RN02B103JS	R METAL FILM	2W 10K OHM J SMALL	
R411	RN02B561JS	R METAL FILM	2W 560 OHM J SMALL	
R826	RN02B473JS	R METAL FILM	2W 47K OHM J SMALL	
R840	RN02B229JS	R METAL FILM	2W 2.2 OHM J SMALL	
SG01	4SG0DX0001	SPARK GAP	SSG-102-A1(1.0KV) TAP	
SG02	4SG0DX0001	SPARK GAP	SSG-102-A1(1.0KV) TAP	
SG03	4SG0DX0001	SPARK GAP	SSG-102-A1(1.0KV) TAP	
SW01	5S50101Z90	SW TACT	THVV502GDA	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
SW02	5S50101Z90	SW TACT	THVV502GDA	
SW03	5S50101Z90	SW TACT	THVV502GDA	
SW04	5S50101Z90	SW TACT	THVV502GDA	
SW05	5S50101Z90	SW TACT	THVV502GDA	
SW11	5S50101Z90	SW TACT	THVV502GDA	
SW12	5S50101Z90	SW TACT	THVV502GDA	
SW13	5S50101Z90	SW TACT	THVV502GDA	
SW14	5S50101Z90	SW TACT	THVV502GDA	
SW15	5S50101Z90	SW TACT	THVV502GDA	
ZA01	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF	
ZA02	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF	
ZA03	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF	
ZA04	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF	
ZA30	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF	
ZA31	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF	
ZA32	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF	
ZZ200	PTMPJAE102	PCB MAIN AXIAL AS	DDT-21H9ZTF	
A001	4859816792	PCB MAIN	330X246 D1B	
C512	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C522	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C523	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
C530	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)	
C544	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C546	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C551	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C558	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C564	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C565	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C566	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C592	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C597	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C598	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C599	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C807	CCZB1H103K	C CERA	HIKB 50V 0.01MF K AXIAL	
C809	CCZB1H821K	C CERA	50V B 820PF K AXIAL	
C812	CCZB1H471K	C CERA	50V B 470PF K (AXIAL)	
C826	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
CA04	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)	
CA05	CCZB1H221K	C CERA	50V B 220PF K (AXIAL)	
CA06	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)	
D101	D1N4148—-	DIODE	1N4148 (TAPPING)	
D102	DBA282——	DIODE	BA282	
D103	DUZ33B——	DIODE ZENER	UZ-33B	
D301	DUZ12BM—-	DIODE ZENER	UZ-12BM (UNIZON)	
D302	D1N4937G—	DIODE	1N4937G (TAPPING)	
D303	D1N4937G—	DIODE	1N4937G (TAPPING)	
D304	D1N4937G—	DIODE	1N4937G (TAPPING)	
D306	DUZ33B——	DIODE ZENER	UZ-33B	
D307	DUZ33B——	DIODE ZENER	UZ-33B	
D308	DUZ33B——	DIODE ZENER	UZ-33B	
D401	D1N4937G—	DIODE	1N4937G (TAPPING)	
D405	D1N4937G—	DIODE	1N4937G (TAPPING)	
D414	D1N4004S—	DIODE	1N4004S	
D425	D1N4148—-	DIODE	1N4148 (TAPPING)	
D426	D1N4148—-	DIODE	1N4148 (TAPPING)	
D501	D1N4148—-	DIODE	1N4148 (TAPPING)	
D502	DUZ3R9B—-	DIODE ZENER	UZ-3.9B	
D503	DUZ3R9B—-	DIODE ZENER	UZ-3.9B	
D523	DUZ3R9B—-	DIODE ZENER	UZ-3.9B	
D601	D1N4148—-	DIODE	1N4148 (TAPPING)	
D602	D1N4148—-	DIODE	1N4148 (TAPPING)	
D710	DUZ5R6BM—	DIODE ZENER	UZ-5.6BM	
D801	DLT2A05G—	DIODE	LT2A05G (TP)	
D802	DLT2A05G—	DIODE	LT2A05G (TP)	
D803	DLT2A05G—	DIODE	LT2A05G (TP)	
D804	DLT2A05G—	DIODE	LT2A05G (TP)	
D805	D1N4937G—	DIODE	1N4937G (TAPPING)	
D806	D1N4937G—	DIODE	1N4937G (TAPPING)	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
D807	D1N4148---	DIODE	1N4148 (TAPPING)	
D808	DUZ6R2BM---	DIODE ZENER	UZ-6.2BM	
D809	DRGP15J---	DIODE	RGP15J DO-204AC 600V 1.5A	
D813	DRGP15J---	DIODE	RGP15J DO-204AC 600V 1.5A	
D816	D1N4148---	DIODE	1N4148 (TAPPING)	
D817	DUZ5R6BM---	DIODE ZENER	UZ-5.6BM	
D840	DUZ8R2BM---	DIODE ZENER	UZ-8.2BM	
D841	D1N4148---	DIODE	1N4148 (TAPPING)	
D904	D1N4937G---	DIODE	1N4937G (TAPPING)	
D905	D1N4937G---	DIODE	1N4937G (TAPPING)	
D906	D1N4937G---	DIODE	1N4937G (TAPPING)	
D997	DLT2A05G---	DIODE	LT2A05G (TP)	
DA01	D1N4148---	DIODE	1N4148 (TAPPING)	
DA02	DUZ5R6BM---	DIODE ZENER	UZ-5.6BM	
DA04	DUZ5R6BM---	DIODE ZENER	UZ-5.6BM	
DA05	DUZ5R6BM---	DIODE ZENER	UZ-5.6BM	
DA06	DUZ5R6BM---	DIODE ZENER	UZ-5.6BM	
DA08	DUZ5R6BM---	DIODE ZENER	UZ-5.6BM	
DA09	DUZ5R6BM---	DIODE ZENER	UZ-5.6BM	
DA10	DUZ5R6BM---	DIODE ZENER	UZ-5.6BM	
DA11	DUZ5R6BM---	DIODE ZENER	UZ-5.6BM	
DA23	DUZ5R6BM---	DIODE ZENER	UZ-5.6BM	
DA24	DUZ5R6BM---	DIODE ZENER	UZ-5.6BM	
DA30	DUZ5R6BM---	DIODE ZENER	UZ-5.6BM	
DA31	D1N4148---	DIODE	1N4148 (TAPPING)	
DA32	DUZ5R6BM---	DIODE ZENER	UZ-5.6BM	
DA33	D1N4148---	DIODE	1N4148 (TAPPING)	
DA34	DUZ5R6BM---	DIODE ZENER	UZ-5.6BM	
DD01	DUZ5R6BM---	DIODE ZENER	UZ-5.6BM	
DD03	D1N4148---	DIODE	1N4148 (TAPPING)	
DD04	D1N4148---	DIODE	1N4148 (TAPPING)	
J001	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J002	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J003	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J004	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J005	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J006	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J007	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J008	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J009	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J010	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J011	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J012	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J013	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J014	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J016	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J017	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J018	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J019	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J022	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J024	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J025	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J026	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J027	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J028	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J029	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J030	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J031	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J032	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J033	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J034	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J035	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J036	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J037	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J038	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J039	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J040	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J041	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
J042	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
J043	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J044	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J045	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J046	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J047	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J048	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J049	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J050	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J051	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J052	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J053	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J054	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J055	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J056	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J057	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J058	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J059	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J060	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J061	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J062	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J063	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J065	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J066	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J067	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J068	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J069	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J070	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J071	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J072	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J073	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J074	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J075	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
J076	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J077	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J078	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J079	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J080	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J081	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J082	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J083	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J084	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J085	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J086	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J087	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J088	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J089	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J090	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J091	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J093	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J094	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J095	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J096	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J097	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J098	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J099	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J100	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J101	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J102	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J103	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J104	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J105	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J106	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
J107	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J108	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J109	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J110	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J111	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	

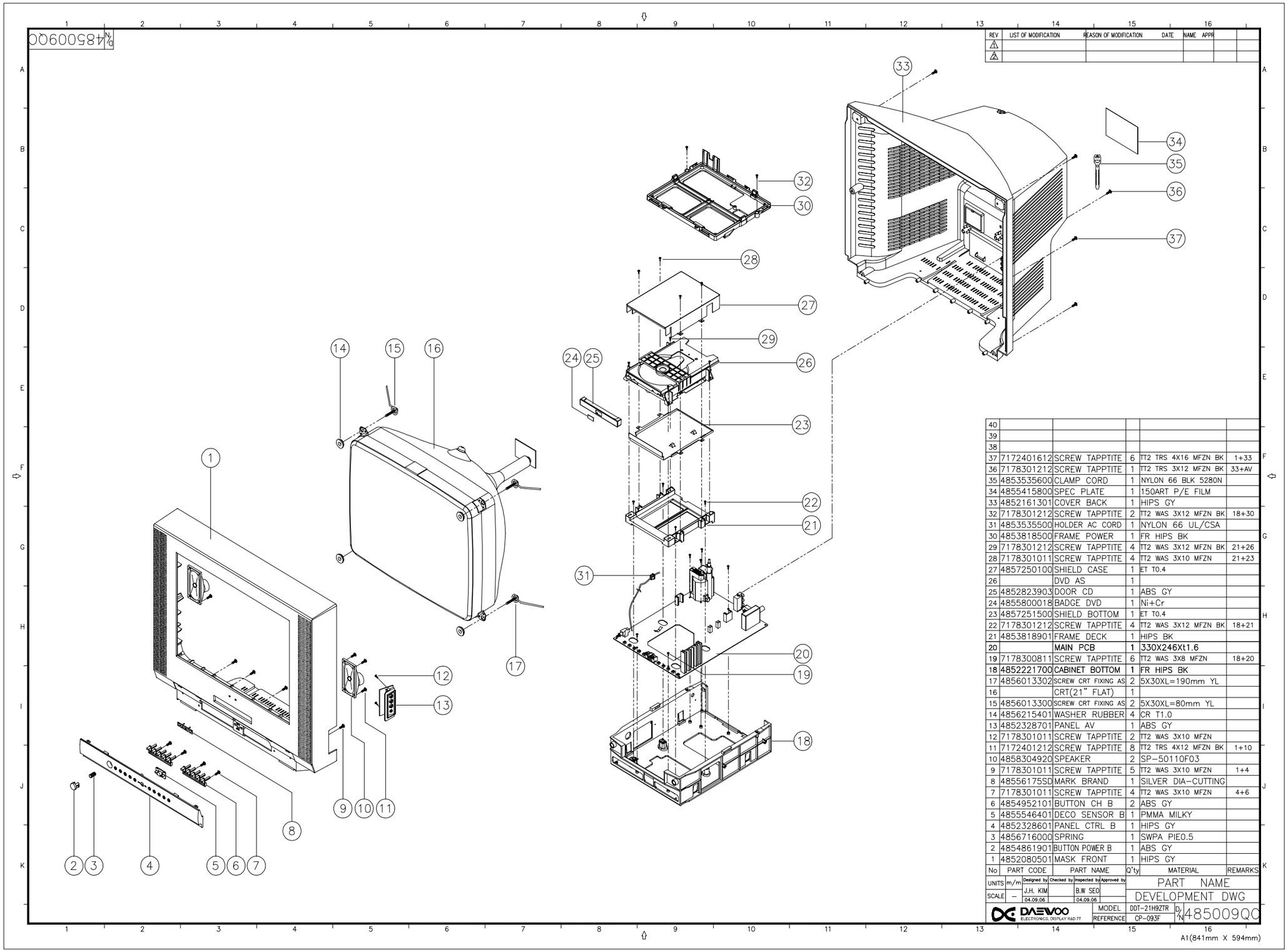
LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
J112	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J113	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J114	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J115	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J116	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J117	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J118	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J119	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J120	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J121	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J122	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J123	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J124	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J125	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J126	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J127	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J128	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J129	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J130	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J131	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J132	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J133	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J134	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J135	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J136	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J137	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
J138	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J139	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J140	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J141	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J142	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J143	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J144	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J145	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J146	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J147	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J148	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J149	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J150	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J151	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J152	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J153	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J154	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J155	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J156	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J157	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J158	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J159	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J160	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J161	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J162	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J500	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
L101	5CPZ100K02	COIL PEAKING	10UH K (AXIAL 3.5MM)	
L301	5CPZ109M04	COIL PEAKING	1UH 10.5MM M (LAL04TB)	
L350	5CPZ109M04	COIL PEAKING	1UH 10.5MM M (LAL04TB)	
L351	5CPZ109M04	COIL PEAKING	1UH 10.5MM M (LAL04TB)	
L505	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L506	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L507	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L508	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L509	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L510	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L512	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L513	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L514	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L515	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L516	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L517	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
L518	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L519	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L523	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L650	5MC0000100	COIL BEAD	HC-3550	
L801	5MC0000100	COIL BEAD	HC-3550	
LA30	5CPZ100K02	COIL PEAKING	10UH K (AXIAL 3.5MM)	
LD01	5CPZ100K02	COIL PEAKING	10UH K (AXIAL 3.5MM)	
LD81	5CPZ100K02	COIL PEAKING	10UH K (AXIAL 3.5MM)	
R105	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R106	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R107	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R109	RD-AZ391J-	R CARBON FILM	1/6 390 OHM J	
R128	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
R155	RD-AZ222J-	R CARBON FILM	1/6 2.2K OHM J	
R156	RD-AZ222J-	R CARBON FILM	1/6 2.2K OHM J	
R202	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
R301	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
R302	RD-4Z222F-	R CARBON FILM	1/4 2.2K OHM F	
R303	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
R304	RD-4Z222F-	R CARBON FILM	1/4 2.2K OHM F	
R305	RD-4Z394J-	R CARBON FILM	1/4 390K OHM J	
R306	RD-4Z473J-	R CARBON FILM	1/4 47K OHM J	
R309	RD-4Z272J-	R CARBON FILM	1/4 2.7K OHM J	
R401	RD-4Z272J-	R CARBON FILM	1/4 2.7K OHM J	
R402	RD-4Z220J-	R CARBON FILM	1/4 22 OHM J	
R403	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J	
R405	RD-4Z182J-	R CARBON FILM	1/4 1.8K OHM J	
R407	RD-2Z331J-	R CARBON FILM	1/2 330 OHM J	
R410	RD-2Z474J-	R CARBON FILM	1/2 470K OHM J	
R419	RD-AZ273J-	R CARBON FILM	1/6 27K OHM J	
R422	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J	
R423	RD-4Z512J-	R CARBON FILM	1/4 5.1K OHM J	
R424	RD-4Z303J-	R CARBON FILM	1/4 30K OHM J	
R503	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R504	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	
R505	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R515	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R517	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R518	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R519	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R527	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R528	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R539	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
R540	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
R542	RD-AZ683J-	R CARBON FILM	1/6 68K OHM J	
R544	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J	
R545	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	
R546	RD-AZ181J-	R CARBON FILM	1/6 180 OHM J	
R554	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R555	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R556	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R557	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R561	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R562	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R563	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R564	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R565	RD-AZ154J-	R CARBON FILM	1/6 150K OHM J	
R566	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R567	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R568	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R569	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R576	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R577	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R578	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R579	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R580	RD-AZ123J-	R CARBON FILM	1/6 12K OHM J	
R581	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R585	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
R586	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R587	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R588	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R590	RD-AZ334J-	R CARBON FILM	1/6 330K OHM J	
R599	RD-AZ224J-	R CARBON FILM	1/6 220K OHM J	
R601	RD-AZ152J-	R CARBON FILM	1/6 1.5K OHM J	
R610	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R612	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	
R650	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	
R660	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	
R713	RD-AZ681J-	R CARBON FILM	1/6 680 OHM J	
R721	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
R722	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J	
R723	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J	
R724	RD-AZ181J-	R CARBON FILM	1/6 180 OHM J	
R731	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
R732	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J	
R733	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J	
R734	RD-AZ181J-	R CARBON FILM	1/6 180 OHM J	
R750	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R751	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R752	RD-AZ391J-	R CARBON FILM	1/6 390 OHM J	
R756	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R757	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R758	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R759	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R802	RD-2Z824J-	R CARBON FILM	1/2 820K OHM J	
R804	RD-2Z474J-	R CARBON FILM	1/2 470K OHM J	
R805	RD-2Z274J-	R CARBON FILM	1/2 270K OHM J	
R806	RD-4Z220J-	R CARBON FILM	1/4 22 OHM J	
R808	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R809	RD-4Z152J-	R CARBON FILM	1/4 1.5K OHM J	
R810	RD-4Z221J-	R CARBON FILM	1/4 220 OHM J	
R811	RC-2Z565KP	R CARBON COMP	1/2 5.6M OHM K	
R812	RD-4Z473J-	R CARBON FILM	1/4 47K OHM J	
R813	RD-4Z473J-	R CARBON FILM	1/4 47K OHM J	
R814	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R815	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R816	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
R817	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J	
R818	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R819	RD-4Z103J-	R CARBON FILM	1/4 10K OHM J	
R822	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
R824	RD-4Z223J-	R CARBON FILM	1/4 22K OHM J	
R827	RD-4Z363J-	R CARBON FILM	1/4 36K OHM J	
R828	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R829	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R833	RD-4Z220J-	R CARBON FILM	1/4 22 OHM J	
R836	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R837	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R838	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	
R841	RD-2Z479J-	R CARBON FILM	1/2 4.7 OHM J	
R842	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R843	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R844	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R845	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
R910	RD-2Z102J-	R CARBON FILM	1/2 1K OHM J	
R911	RD-2Z102J-	R CARBON FILM	1/2 1K OHM J	
R912	RD-2Z102J-	R CARBON FILM	1/2 1K OHM J	
R913	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R914	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R915	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R921	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J	
R922	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J	
R923	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J	
R930	RD-4Z100J-	R CARBON FILM	1/4 10 OHM J	
R996	RD-2Z105J-	R CARBON FILM	1/2 1M OHM J	
R997	RD-2Z102J-	R CARBON FILM	1/2 1K OHM J	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
RA05	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
RA07	RD-AZ332J-	R CARBON FILM	1/6 3.3K OHM J	
RA08	RD-4Z750J-	R CARBON FILM	1/4 75 OHM J	
RA10	RD-AZ470J-	R CARBON FILM	1/6 47 OHM J	
RA12	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RA14	RD-AZ220J-	R CARBON FILM	1/6 22 OHM J	
RA29	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
RD09	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J	
RD18	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J	
RD40	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
ZZ280	PTAVMSE102	PCB A/V MANUAL AS	DDT-21H9ZTF	
10	2193102005	SOLDER BAR	SN:PB=63:37 S63S-1320	
30	2291050616	FLUX SOLDER	JS-64T3	
40	2291050301	FLUX SOLVENT	IM-1000	
JPA02	4859105450	JACK PIN BOARD	YSC03P-4120-9S	
JPA03	4859105240	JACK PHONE	LGT1516-0100	
M232	4852328701	PANEL AV	ABS GY 21L6	
M232A	7178301011	SCREW TAPPTITE	TT2 WAS 3X10 MFZN	
PA1	4851900130	GROUND TUNER AS	DS-W1015-S	
PA2	4850701S02	CONNECTOR	RINGTERM4.3+YPT018+ULW=300	
PA502	4850712V08	CONNECTOR	YH025-12+YBNH250+ULW=300	
ZZ200	PTAVJRE102	PCB A/V RADIAL AS	DDT-21H9ZTF	
CAA3	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP	
CAA4	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP	
ZAA1	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF	
ZAA2	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF	
ZAA3	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF	
ZAA4	5PXF1B471M	FILTER EMI	CFI 06 B 1H 470PF	
ZZ200	PTAVJAE102	PCB A/V AXIAL AS	DDT-21H9ZTF	
A001	4859810516	PCB AV	330X246 D1B	
CAA1	CCZB1H471K	C CERA	50V B 470PF K (AXIAL)	
CAA2	CCZB1H471K	C CERA	50V B 470PF K (AXIAL)	
DAA1	DUZ5R6BM—	DIODE ZENER	UZ-5.6BM	
DAA2	DUZ5R6BM—	DIODE ZENER	UZ-5.6BM	
DAA3	D1N4148—	DIODE	1N4148 (TAPPING)	
DAA4	DUZ5R6BM—	DIODE ZENER	UZ-5.6BM	
DAA5	D1N4148—	DIODE	1N4148 (TAPPING)	
J001	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
RAA1	RD-2Z300J-	R CARBON FILM	1/2 30 OHM J	
RAA2	RD-2Z300J-	R CARBON FILM	1/2 30 OHM J	

8.1 DTD-14H9

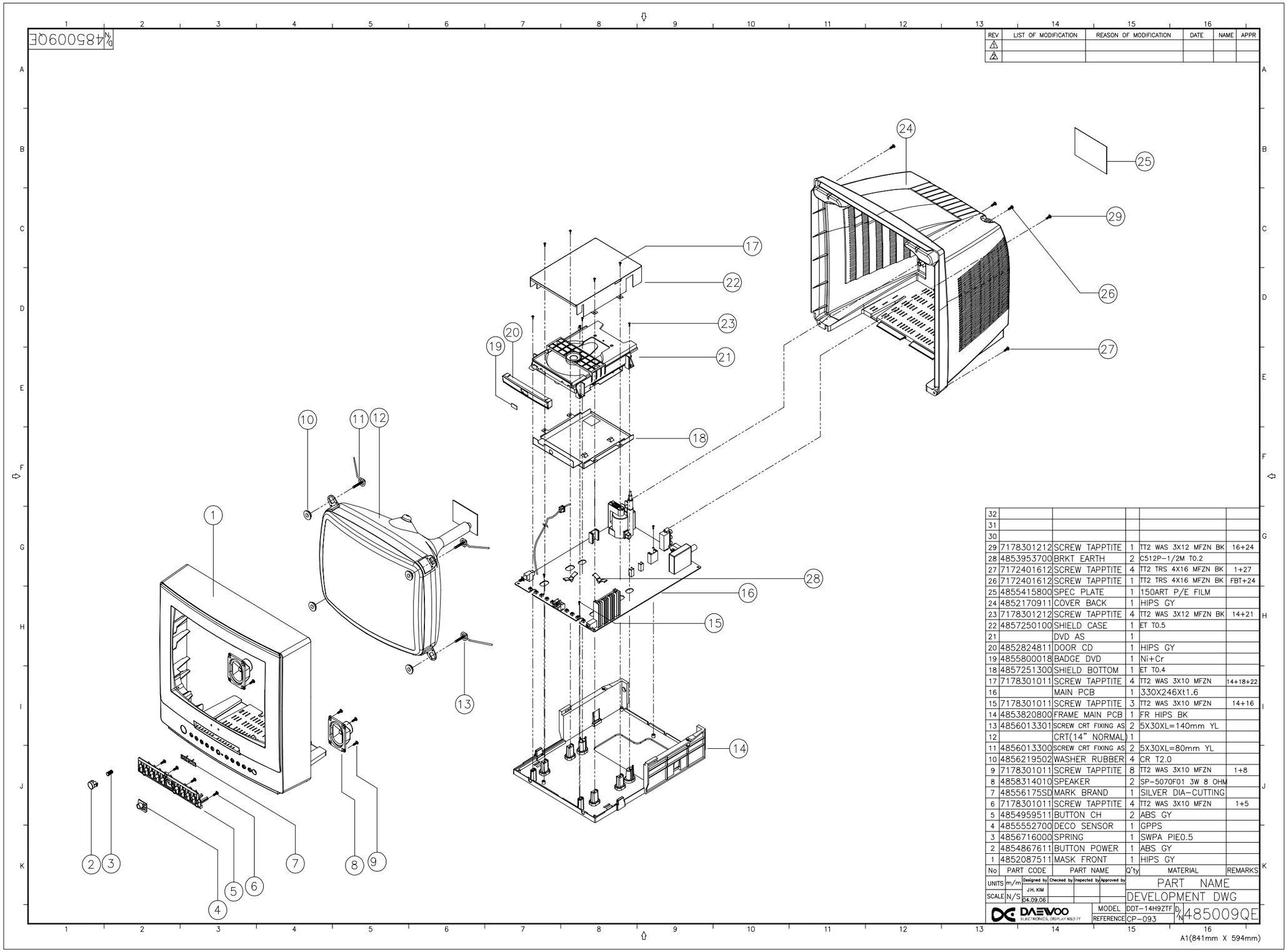


No	PART CODE	PART NAME	Q'ty	MATERIAL	REMARKS
40					
39					
38					
37	7172401612	SCREW TAPPTITE	6	TT2 TRS 4X16 MFZN BK	1+33
36	7178301212	SCREW TAPPTITE	1	TT2 TRS 3X12 MFZN BK	33+AV
35	4853535600	CLAMP CORD	1	NYLON 66 BLK 5280N	
34	4855415800	SPEC PLATE	1	150ART P/E FILM	
33	4852161301	COVER BACK	1	HIPS GY	
32	7178301212	SCREW TAPPTITE	2	TT2 WAS 3X12 MFZN BK	18+30
31	4853535500	HOLDER AC CORD	1	NYLON 66 UL/CSA	
30	4853818500	FRAME POWER	1	FR HIPS BK	
29	7178301212	SCREW TAPPTITE	4	TT2 WAS 3X12 MFZN BK	21+26
28	7178301011	SCREW TAPPTITE	4	TT2 WAS 3X10 MFZN	21+23
27	4857250100	SHIELD CASE	1	ET T0.4	
26		DVD AS	1		
25	4852823903	DOOR CD	1	ABS GY	
24	4855800018	BADGE DVD	1	Ni+Cr	
23	4857251500	SHIELD BOTTOM	1	ET T0.4	
22	7178301212	SCREW TAPPTITE	4	TT2 WAS 3X12 MFZN BK	18+21
21	4853818901	FRAME DECK	1	HIPS BK	
20		MAIN PCB	1	330X246Xt1.6	
19	7178300811	SCREW TAPPTITE	6	TT2 WAS 3X8 MFZN	18+20
18	4852221700	CABINET BOTTOM	1	FR HIPS BK	
17	4856013302	SCREW CRT FIXING AS	2	5X30XL=190mm YL	
16		CRT(21" FLAT)	1		
15	4856013300	SCREW CRT FIXING AS	2	5X30XL=80mm YL	
14	4856215401	WASHER RUBBER	4	CR T1.0	
13	4852328701	PANEL AV	1	ABS GY	
12	7178301011	SCREW TAPPTITE	2	TT2 WAS 3X10 MFZN	
11	7172401212	SCREW TAPPTITE	8	TT2 TRS 4X12 MFZN BK	1+10
10	4858304920	SPEAKER	2	SP-50110F03	
9	7178301011	SCREW TAPPTITE	5	TT2 WAS 3X10 MFZN	1+4
8	48556175SD	MARK BRAND	1	SILVER DIA-CUTTING	
7	7178301011	SCREW TAPPTITE	4	TT2 WAS 3X10 MFZN	4+6
6	4854952101	BUTTON CH B	2	ABS GY	
5	4855546401	DECO SENSOR B	1	PMMA MILKY	
4	4852328601	PANEL CTRL B	1	HIPS GY	
3	4856716000	SPRING	1	SWPA PIE0.5	
2	4854861901	BUTTON POWER B	1	ABS GY	
1	4852080501	MASK FRONT	1	HIPS GY	

UNITS	m/m	Designed by	Checked by	Inspected by	Approved by	PART NAME
SCALE	–	J.H. KIM 04.09.06		B.W SEO 04.09.06		DEVELOPMENT DWG

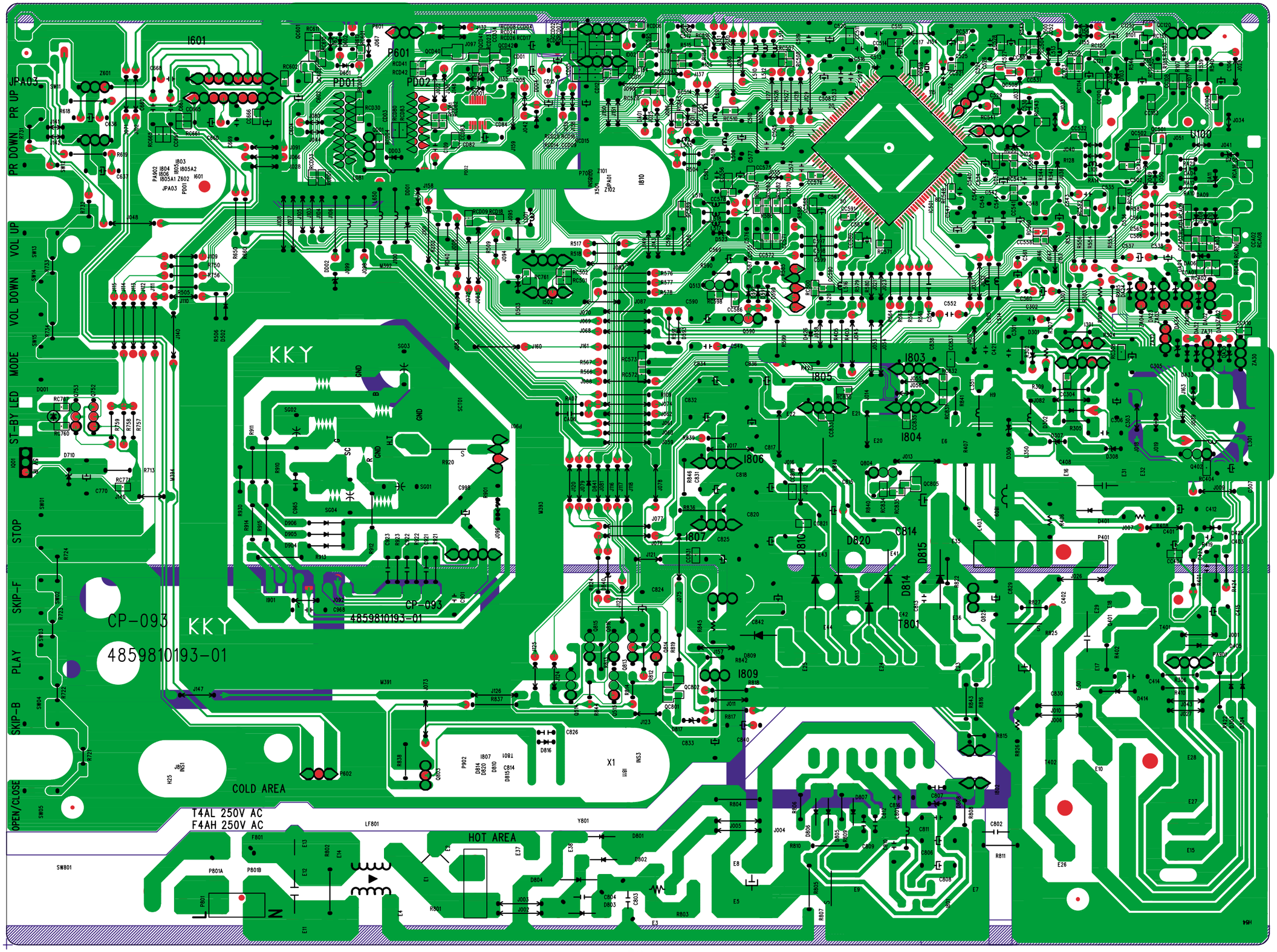
DAEWOO ELECTRONICS, DISPLAY R&D IT — MODEL DDT-21H9ZTR — REFERENCE CP-093F — P/N 48500900

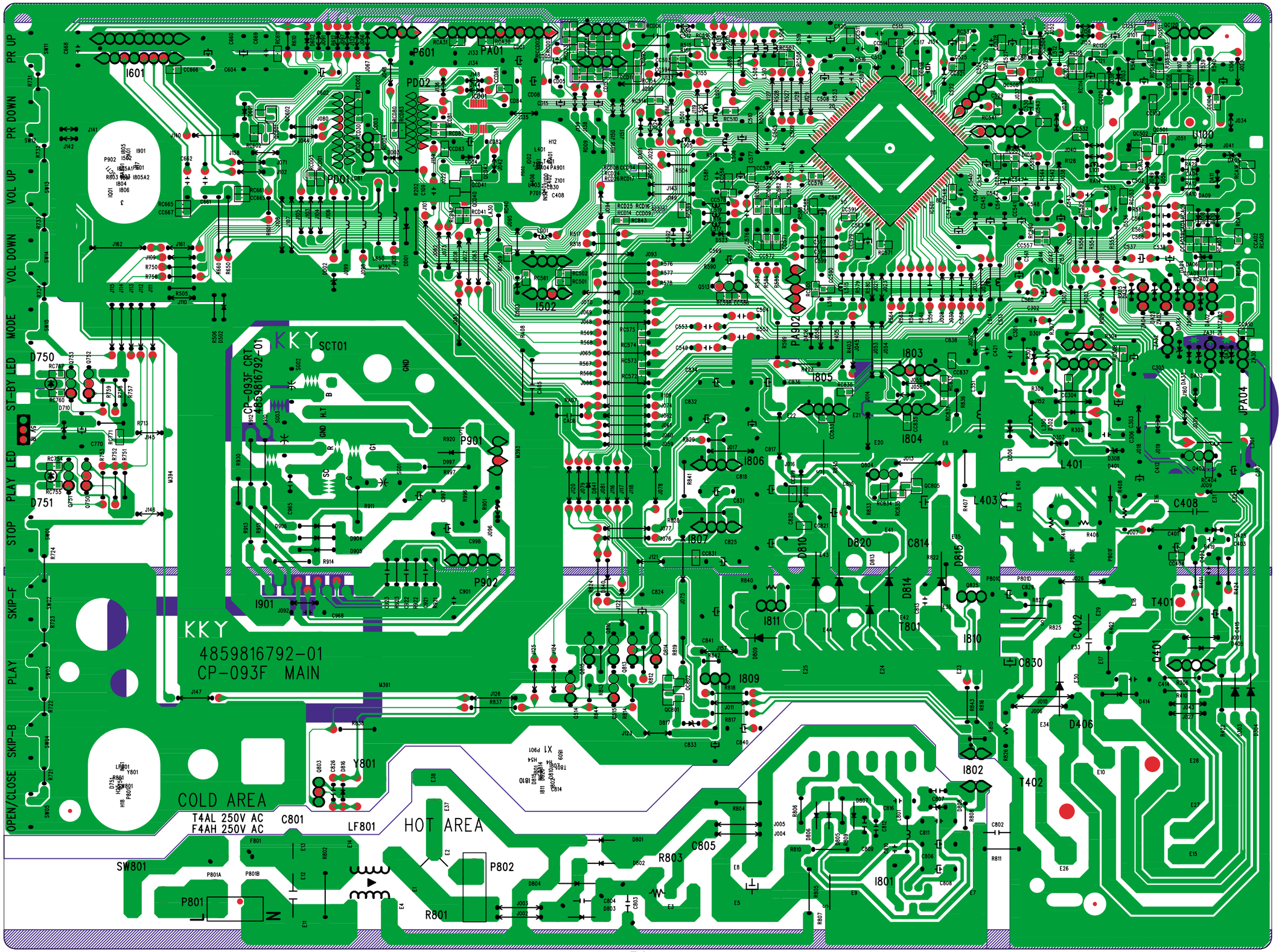
8.2 DTD-21H9

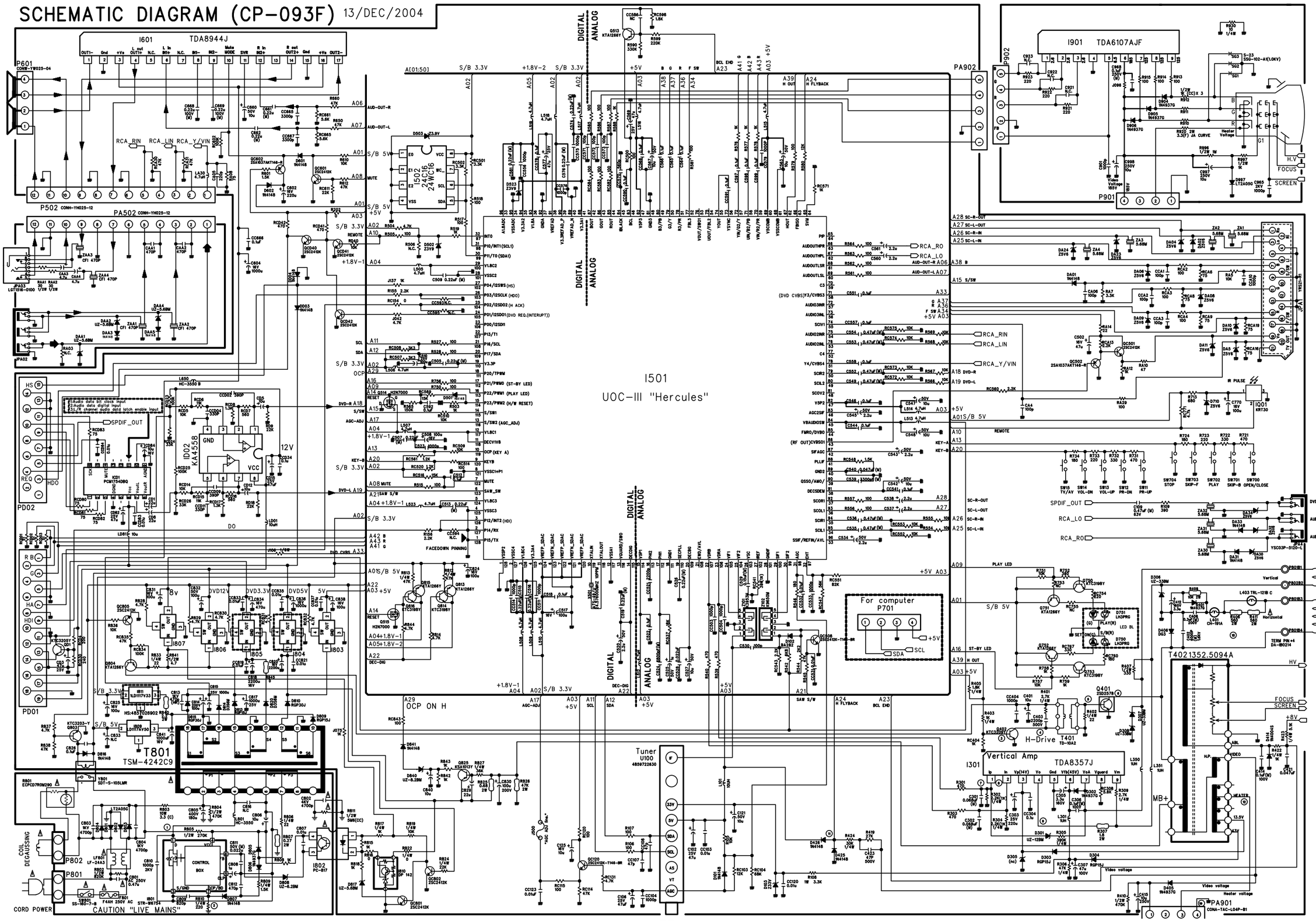


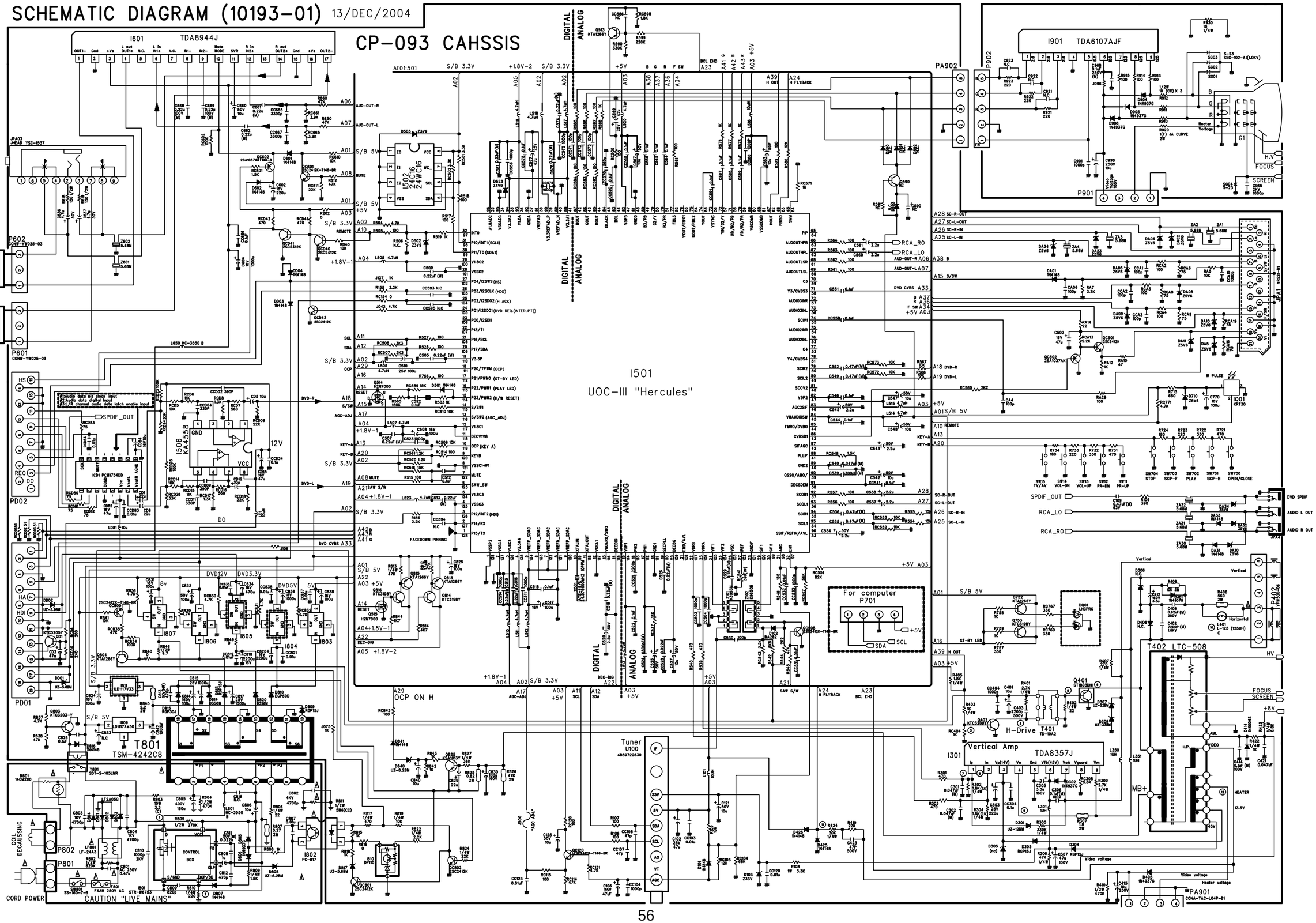
No	PART CODE	PART NAME	Q'ty	MATERIAL	REMARKS
32					
31					
30					
29	7178301212	SCREW TAPPTITE	1	TT2 WAS 3X12 MFZN BK	16+24
28	4853953700	BRKT EARTH	2	C512P-1/2M T0.2	
27	7172401612	SCREW TAPPTITE	4	TT2 TRS 4X16 MFZN BK	1+27
26	7172401612	SCREW TAPPTITE	1	TT2 TRS 4X16 MFZN BK	FBT+24
25	4855415800	SPEC PLATE	1	150ART P/E FILM	
24	4852170911	COVER BACK	1	HIPS GY	
23	7178301212	SCREW TAPPTITE	4	TT2 WAS 3X12 MFZN BK	14+21
22	4857250100	SHIELD CASE	1	ET T0.5	
21		DVD AS	1		
20	4852824811	DOOR CD	1	HIPS GY	
19	4855800018	BADGE DVD	1	Ni+Cr	
18	4857251300	SHIELD BOTTOM	1	ET T0.4	
17	7178301011	SCREW TAPPTITE	4	TT2 WAS 3X10 MFZN	14+18+22
16		MAIN PCB	1	330X246Xt1.6	
15	7178301011	SCREW TAPPTITE	3	TT2 WAS 3X10 MFZN	14+16
14	4853820800	FRAME MAIN PCB	1	FR HIPS BK	
13	4856013301	SCREW CRT FIXING AS	2	5X30XL=140mm YL	
12		CRT(14" NORMAL)	1		
11	4856013300	SCREW CRT FIXING AS	2	5X30XL=80mm YL	
10	4856219502	WASHER RUBBER	4	CR T2.0	
9	7178301011	SCREW TAPPTITE	8	TT2 WAS 3X10 MFZN	1+8
8	4858314010	SPEAKER	2	SP-5070F01 3W 8 OHM	
7	48556175SD	MARK BRAND	1	SILVER DIA-CUTTING	
6	7178301011	SCREW TAPPTITE	4	TT2 WAS 3X10 MFZN	1+5
5	4854959511	BUTTON CH	2	ABS GY	
4	4855552700	DECO SENSOR	1	GPPS	
3	4856716000	SPRING	1	SWPA PIE0.5	
2	4854867611	BUTTON POWER	1	ABS GY	
1	4852087511	MASK FRONT	1	HIPS GY	

UNITS m/m | Designed by J.H. KIM | Checked by | Inspected by | Approved by | PART NAME
SCALE N/S | 04.09.06 | DEVELOPMENT DWG
DAEWOO ELECTRONICS, DISPLAY R&D 7T | MODEL DDT-14H9ZTF | REFERENCE CP-093 | D/N 4850090E
A1(841mm X 594mm)


CP-093 KKY
4859810193-01
KKY
COLD AREA
HOT AREA
T4AL 250V AC
F4AH 250V AC
PR UP
PR DOWN
VOL UP
VOL DOWN
MODE
ST-BY LED
STOP
SKIP-F
PLAY
SKIP-B
OPEN/CLOSE


PR UP
PR DOWN
VOL UP
VOL DOWN
MODE
ST-BY LED
PLAY LED
STOP
SKIP-F
PLAY
SKIP-B
OPEN/CLOSE
KKY
SCT01
CP-093F CRT
4859816792-01
KKY
4859816792-01
CP-093F MAIN
COLD AREA
HOT AREA
T4AL 250V AC
F4AH 250V AC
C801
LF801
SW801
P801
P802
R801
R803
C805
Y801
T801
T402
T401
L401
L403
Q401
C408
C814
C830
D406
D810
D820
D814
D816
I601
I801
I802
I803
I804
I805
I806
I807
I809
I810
I811
I901
I502
P601
P901
P902
PA01
PA902
PD01
PD02
SN00
JPA04
GND


SCHEMATIC DIAGRAM (CP-093F) 13/DEC/2004
I601 TDA8944J
P601
P502 CONN-YH025-12
PA502 CONN-YH025-12
RCA_RIN
RCA_LIN
RCA_Y/VIN
AUD-OUT-R A06
AUD-OUT-L A07
MUTE A08
REMOTE A10
I501
UOC-III "Hercules"
DIGITAL
ANALOG
PA902
I901 TDA6107AJF
P902
P901
SCREEN
FOCUS
H.V
I807
I806
I805
I804
I803
T801
TSM-4242C9
PD01
PD02
SPDIF_OUT
CAUTION "LIVE MAINS"
CORD POWER
P802
P801
I501 UOC-III "Hercules"
Tuner U100
4859722830
Vertical Amp I301 TDA8357J
H-Drive T401
Q401
T4021352.5094A
For computer P701
PA901
SPDIF_OUT
RCA_LO
RCA_RO
DVD SPDIF
AUDIO L OUT
AUDIO R OUT
IR PULSE
SW704 STOP
SW703 SKIP-F
SW702 PLAY
SW701 SKIP-B
SW700 OPEN/CLOSE
Vertical
Horizontal
HV
FOCUS
SCREEN
MB+
HEATER
13.5V
43V
Video voltage
Heater voltage


SCHEMATIC DIAGRAM (10193-01) 13/DEC/2004
CP-093 CAHSSIS
I501
UOC-III "Hercules"
I601 TDA8944J
I901 TDA6107AJF
I301 Vertical Amp TDA8357J
T801 TSM-4242C8
T402 LTC-508
Tuner U100 4859722630
For computer P701
CAUTION "LIVE MAINS"
CORD POWER
DIGITAL
ANALOG

DAEWOO

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